

PAVE IT OR SAVE IT:
WILDLIFE PROTECTION PLANNING UNDER
THE BASE CLOSURE AND REALIGNMENT ACTS

by

Thomas N. Williams, Jr.

B.S., Mechanical Engineering, Louisiana Tech University, 1991

M.S., Environmental Science, University of Colorado, Denver, 1996

A thesis submitted to the
University of Colorado at Denver
in partial fulfillment
of the requirements for the degree of
Doctorate of Philosophy
Public Administration
1999

REPORT DOCUMENTATION PAGE			Form Approved OMB No. 0704-0188	
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.				
1. AGENCY USE ONLY (Leave blank)	2. REPORT DATE 19.Oct.99	3. REPORT TYPE AND DATES COVERED DISSERTATION		
4. TITLE AND SUBTITLE PAVE IT OR SAVE IT: WILDLIFE PROTECTION PLANNING UNDER THE BASE CLOSURE AND REALIGNMENT ACTS		5. FUNDING NUMBERS		
6. AUTHOR(S) CAPT WILLIAMS THOMAS N				
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) UNIVERSITY OF COLORADO DENVER		8. PERFORMING ORGANIZATION REPORT NUMBER		
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) THE DEPARTMENT OF THE AIR FORCE AFIT/CIA, BLDG 125 2950 P STREET WPAFB OH 45433		10. SPONSORING/MONITORING AGENCY REPORT NUMBER FY99-313		
11. SUPPLEMENTARY NOTES				
12a. DISTRIBUTION AVAILABILITY STATEMENT Unlimited distribution In Accordance With AFI 35-205/AFIT Sup 1		12b. DISTRIBUTION CODE DISTRIBUTION STATEMENT A Approved for Public Release Distribution Unlimited		
13. ABSTRACT (Maximum 200 words)				
14. SUBJECT TERMS		15. NUMBER OF PAGES 379		
		16. PRICE CODE		
17. SECURITY CLASSIFICATION OF REPORT	18. SECURITY CLASSIFICATION OF THIS PAGE	19. SECURITY CLASSIFICATION OF ABSTRACT	20. LIMITATION OF ABSTRACT	

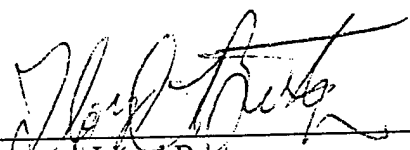
This thesis for the Doctor of Philosophy

degree by


Thomas N. Williams, Jr.

has been approved

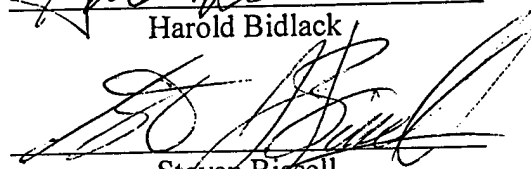
by



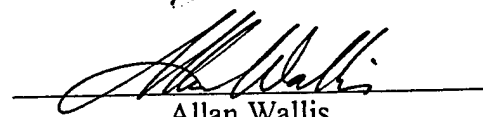
Lloyd Burton



Harold Bidlack

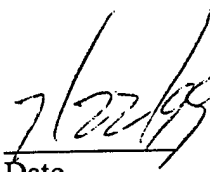


Steven Bissell



Allan Wallis

Toddi Steelman



Date

© 1999 by Thomas N. Williams, Jr.

All rights reserved.

DEDICATION

Dedicated to my daughter Haley and her generation,
who tomorrow must live with the choices we make today.

ACKNOWLEDGEMENTS

First off, I want to thank the Air Force for giving me this opportunity to further my education. I had always thought that if I was to get a doctorate that I would have to treat it like a full-time job and do nothing else; otherwise, I would probably never finish it. In the summer of 1996, the Air Force came to me and said, "We would like you to get your doctorate, take three years off, and treat it like a full-time job." Needless to say, I consider myself very lucky to get this kind of dream job. Second, I would like to thank my chair, Dr. Burton. Not only did he help me stay on schedule for my dissertation (I only had a year), he understood that I did not have a strong qualitative background in public administration, and correspondingly, he took the time to explain unfamiliar concepts, going so far as drawing pictures and spelling it out for me. Third, I would like to thank my wife Beth. Doing a dissertation in a year is not an easy task. She put up with the days when my mind was elsewhere, my months in front of the computer, and my moments of extreme self-doubt (there were many). She proofread my work, took care of our daughter, earned the money that I spent on transcription services and copy editors, and listened to my constant dialogue on topics she (no doubt) had little interest in. Because of all her patience and help, I was able to cram eight years of public administration into three; without her I could not have done it. Fourth and finally, I express my sorrow for all the trees that were

killed in the writing of this dissertation. I hope that one day we as a race will learn our way around our tragic flaw of "fighting for peace."

DISCLAIMER

The ideas and conclusions presented in this work are strictly my own.

Nowhere in this document do I speak for the Department of Defense, United States

Air Force, or any other military agency or individual.

Because we cannot, over the long run, sustain an American economy in this New
World unless we have a theory of sustainable development
that puts the environment first, not last, and recognizes that we can grow the
economy and still preserve our natural heritage...

President Bill Clinton, in a speech given at the
Presidio of San Francisco, June 1996

Williams, Thomas N., Jr. (Ph.D., Public Administration)

Pave it or save it: Wildlife preservation planning under the Base Closure and
Realignment Acts

Thesis directed by Associate Professor Lloyd Burton

ABSTRACT

This dissertation addresses the following question: "What factors appear most closely associated with successful wildlife protection planning at Air Force bases closed under the Base Closure and Realignment Acts?" Six factors were investigated: local environmental ethical concern and activism, local community wealth, community cohesion and stability, demographic/geographic characteristics, public participation, and administrative context and processes. A modified grounded theory approach to knowledge creation and a historical comparative case study between a closed Air Force base that successfully produced wildlife protection plans and one that did not produce equivalent plans was used in this research. Data were collected through semi-structured, open-ended interviews and the analysis of relevant documents. The interview data, document data, and themes for each base were then compared. Once this was done, salient

differences and points of commonality between the bases, relevant factors, and supporting theories were then assessed. Out of the six factors investigated, a high level of local environmental activism, local community cohesion and stability, and public participation by a community surrounding a base were most closely associated with the creation of wildlife protection plans. In respect to each other, these factors behaved in the following manner: environmental activism -- initiator, local community cohesion and stability -- enabler, and public participation -- impacter.

This study suggests that if the Department of Defense, in general, and the Air Force, in particular, wish to ensure that existing wildlife habitats on military bases continue to exist after that base is closed, more explicit language in the implementing regulations would be helpful. Future reuse/redevelopment commissions/authorities could be required to solicit volunteers from the local community rather than relying on the "friends" of political appointees to fill these positions, which is a common practice. This requirement would then be a condition of receiving redevelopment funding from the Office of Economic Adjustment. As an alternative to this, in order to limit federal involvement in base redevelopment but also encourage wildlife protection, the military could provide the same guidelines, in the form of non-binding recommendations.

This abstract accurately represents the content of the candidate's thesis. I recommend its publication.

Signed

A handwritten signature in cursive script, appearing to read "Lloyd Burton", written over a horizontal line.

Lloyd Burton

PREFACE

In May of 1991, I graduated from college, received my commission in the Air Force, and got married -- it was a very busy month. After four months of waiting, I arrived at my first assignment, Lowry Air Force base (AFB), in Denver, Colorado, with instructions to clean it and close it. Over the next three years, as an Air Force Environmental Engineer, I personally handled over 500,000 pounds of hazardous materials, managed a \$30 million base restoration program, and was responsible for maintaining all natural and cultural resources. Out of the above three jobs, I enjoyed being the natural and cultural resource manager the most. It got me out of the office, and I didn't have to wear a gas mask to do it.

Lowry AFB, surrounded by neighborhoods, shopping districts, and industrial areas, was located between the cities of Denver and Aurora. However, when I was on the base, I didn't get the feeling that I was just a couple of miles from downtown Denver. The base had hundreds of acres of open space, beautiful views of the mountains, 50 acres of wetlands, five families of foxes, and a turtle named Fred who lived in one of the ponds on the golf course. When cast in the context of the adjacent urban sprawl, Lowry was an island of nature surrounded by a city.

Four years later, while visiting friends who still worked at Lowry, I was dismayed to find the base's open spaces being converted into identical tract homes, miles of new streets, and other commercial developments. I also learned that there were plans to expand the golf course to the edge of the nearby wetlands, an expansion that would greatly increase the amount of pesticide runoff that would reach the wetlands. Finally, I was very sad to learn that most of the foxes had disappeared, and no one had recently seen Fred. My island of nature was sinking under the weight of a growing city.

Around this time I entered the University of Colorado, at Denver, to get my Ph.D. in Public Administration (with an environmental emphasis) in preparation for teaching environmental management courses at the Air Force Institute of Technology. While driving through Denver on chores, I would go by my old haunts at Lowry to see how things had changed. I found myself saddened to see more and more wildlife habitat sacrificed on the altar of urban sprawl.

The redevelopment of Lowry has been (and is) being praised as a wonderful example of how to successfully redevelop a closed military base. However, it seems a shame that this economic redevelopment has to come at a cost of paved over open space, lost wildlife habitat, and disappearing animals. Or does it? It was then that I decided to develop ways to ensure that wildlife

protection issues would be included in the planning of other bases redevelopment under the Base Closure and Realignment Act. My first step in determining how to do this was to understand and describe how wildlife issues are (or are not) integrated into base redevelopment planning. This subject eventually became the focus of my dissertation. What is the point of ensuring the economic development of base, a large industrial complex, a city, a state, or a nation if that development destroys the environment that its people must live in and hope to pass on to future generations?

CONTENTS

CHAPTERS

1. INTRODUCTION	1
Vanishing Wildlife	1
Military Bases as Wildlife Refuges	2
Closed Base Redevelopment = Wildlife Habitat Destruction?	3
The Research Question	4
Importance and Need for Research	6
Research Methods	9
Wildlife Protection, Economic Development, and Sustainability	11
Structure of the Dissertation	13
2. THE FORMULATION, IMPLEMENTATION, AND RECENT HISTORY OF DOMESTIC MILITARY BASE CLOSURE AND CONVERSION POLICY	17
Base Closures	17
The Decade When No Large Bases Closed, 1977-1987	18
Four Rounds of Closures, 1988-1995	19
Base Closures in the Future?	22
Base Closure Environmental Issues	26
The Reuse Planning Process	27
Reuse Planning and Redevelopment Environmental Issues	30

Critiques of Base Closure and Redevelopment	32
3. RESEARCH METHODS AND SUPPORTING LITERATURE ..	38
Modified Grounded Theory	38
Qualitative Methods	39
Grounded Theory	40
Base Selection for Case Studies.....	42
Interviews	45
Documents	49
Analysis	52
Supporting Literature	54
Overview of Sustainable Development Literature.....	55
Sustainable Land Use Planning	57
Other Areas Related to Sustainable Development	
Planning	62
Sustainable Development Indicators	65
Wildlife Status	68
Literature	69
Measurements	72
Environmental Ethical Concern and Activism.....	74
Literature	74
Measurements	76
Local Community Wealth	77
Literature	77
Measurements	79
Demographic and Geographic Characteristics	80

Literature	80
Measurements	82
Public Participation	83
Literature	83
Measurements	95
Administrative Context and Processes	97
Literature	97
Measurements	98
Pilot Study -- Lowry Air Force Base, Colorado	101
Bifurcation	103
Summary	106
 4. MYRTLE BEACH AIR FORCE BASE	 115
Background	115
Demographic, Economic, and Environmental Aspects	116
Myrtle Beach AFB Closure and Redevelopment	124
1991-1992	124
1993- 1999.....	125
Documents	129
Interviews	134
Factor Narrative	138
Demographic and Geographic Characteristics	139
Local Community Wealth	144
Administrative Context and Processes	146
Environmental Ethical Concern and Activism	150
Public Participation	157

Wildlife Status	162
Factor Model	163
Conclusion	165
 5. PEASE AIR FORCE BASE	 169
Background	169
Demographic, Economic, and Environmental Aspects	171
Pease AFB Closure and Redevelopment	174
1988-1990	174
1991-1999	177
Documents	180
Interviews	186
Factor Narrative	189
Demographic and Geographic Characteristics	191
Local Community Wealth	193
Administrative Context and Processes	195
Environmental Ethical Concern and Activism	199
Public Participation	207
Wildlife Status	216
Factor Model	217
Conclusion	219
 6. CONCLUSION	 222
Comparison of Base Factors	222
Wildlife Status Outcomes	222
Demographic and Geographic Characteristics	226

Local Community Wealth	227
Administrative Context and Processes	232
Environmental Ethical Concerns and Activism	233
Public Participation	235
Community Cohesion and Stability	237
Social Capital	240
Results	246
Discussion	251
Recommendations	259
Policy Implications	260
Community Background Conditions	260
Reuse Committee Dynamics	266
Recommendations for Future Research	271

APPENDICES

A. INTERVIEW QUESTIONS	276
B. INTERVIEWEE DATA	288
C. MYRTLE BEACH MAP	291
D. MYRTLE BEACH INTERVIEW QUOTES	293
E. DESCRIPTIVE SUMMARY OF INTERVIEW RESPONSES FOR MYRTLE BEACH AND PEASE	312
F. PEASE MAP	323
G. PEASE INTERVIEW QUOTES	325
REFERENCES	342

FIGURES

Figure	
2.1 Base Reuse Planning Process	29
3.1 Sustainable Development Literature Areas	64
3.2 Flowchart of Factors and Their Measurements	100
4.1 Myrtle Beach Air Force Base Regional Map	117
4.2 Population, Horry County	118
4.3 Timeline, Redevelopment of Myrtle Beach AFB	123
5.1 Pease Air Force Base Regional Map	170
5.2 Population, Rockingham County	172
5.3 Timeline, Redevelopment of Pease AFB	175
6.1 1994 Metropolitan Cost of Living Index	229
6.2 Factor Relationships	255
6.3 Policy Outcome & Influencing Elements	258

TABLES

Table

2.1 Major Air Force Closures 1988, 1991, 1993, 1995	23
2.2 Grant Summaries for Selected Air Force Closure Bases	31
2.3 Civilian Jobs Lost & Gained in the 1988 & 1991 Closures	33
3.1 Base Comparison Table	46
3.2 Summary of Myrtle Beach Documents Analyzed	50
3.3 Summary of Pease Documents Analyzed	51
3.4 Tools for Measuring Environmental Activism	77
3.5 Tools for Measuring Local Community Wealth	80
3.6 Tools for Measuring Demographic & Geographic Aspects	82
3.7 Tools for Measuring Public Participation	96
3.8 Tools for Measuring Administrative Context	99
3.9 Thematic Codes and Data Sources	109
4.1 Myrtle Beach Interviewees	135
4.2 Myrtle Beach Trend Summary	164
5.1 Pease Interviewees	187
5.2 Pease Environmental Groups	204
5.3 Summary of Pease Trends	218
6.1 Comparative Summary of Wildlife Status Outcomes	223
6.2 Community Wealth Comparison	228
6.3 Differences in Environmental Ethical Concern and Activism	235
6.4 Public Participation Differences	237
6.5 Community Cohesion and Stability Differences	239

CHAPTER 1

INTRODUCTION

Protecting our national security in the post-Cold War era includes integrating the best environmental practices into all Department of Defense activities.

Dr. William J. Perry, *Conserving
Biodiversity on Military lands*

Vanishing Wildlife

Over the past ten years there has been a great deal written about vanishing wildlife, the destruction of wildlife habitat, and the importance of wildlife and its habitat to the future of the human race (Baskin 1997; Kellert 1996; Power 1996; Grumbine 1994; Dubasak 1990; Soule and Kohm 1989). The main concern expressed by these authors is that human-induced wildlife losses are increasing at an alarming rate, and once a species is extinct, that unique genetic resource is gone forever.

How many species are there to begin with? How many species are going extinct? There are almost as many different answers as there are experts. Most of the global estimates seemed to fall in the range of four to 23 million animal species with four to 60 going extinct each day (Noss and Cooperrider 1994; Spellerberg and Hargreaves 1992; Wilson 1992; Tudge 1991; Norton 1986). In regard to the United States, there are no solid numbers on species losses (Mac 1998; Langner and Flather

1994; Committee on the Formation of the National Biological Survey 1993).

However, there is a general agreement that biodiversity is declining:

Comparison of data from the 1960s indicates that native diversity has declined in the U.S., over the past three decades, and is likely to continue to decline natural habitats will continue to decline and fragment as a result of growing human populations and associated pressure on a shrinking base of natural habitats. (Langner and Flather 1994, 18)

Diversity refers to the number of different species and population numbers for each.

Diversity loss can come from the extinction of one species or the population reduction of a species to the point that its genetic code variations become extremely limited. This biological diversity loss in the United States has been related to "rapid economic development and habitat destruction" (Dunlap 1988, 142).

Military Bases as Wildlife Refuges

Most of the large wildlife populations remaining in the United States reside on public lands, and mostly federal lands at that (Boice 1997; Dubask 1990; Owen and Chiras 1990). In February of 1997, the periodical *Endangered Species Bulletin* published an issue describing wildlife preservation on Department of Defense (DoD) installations. This issue described how the DoD manages 25 million acres of land (along with 220 endangered species), making it the nation's fifth largest federal land management department. For example, the Presidio (a closed Army base) has some of the only undeveloped property in the San Francisco Bay area that provides

a habitat for the only remaining Presidio Manzanita in the wild. The Desert Tortoise at George Air Force Base in California is also another good example of a federally listed threatened species living on a former DoD base.

Closed Base Redevelopment = Wildlife Habitat Destruction?

As noted earlier, the DoD is the nation's fifth largest federal land management department. In many instances, its bases represent the last remaining native ecosystems in, or near, urban centers:

In early 1993 entomologist Rudi Mattoni was surveying a Navy-owned vacant lot south of Los Angeles when he noted the presence of a small blue butterfly, which he identified as Palos Verdes blue (*Glaucopsyche lydamus palosverdesensis*). This butterfly was believed to have become extinct almost a decade earlier, shortly after its only known habitat was converted into a baseball diamond. (Cooper and Perlman 1997, 3)

Many military lands, whether they are Navy, Army, or Air Force, have large areas of relatively untouched ecosystems. Since 1988, many of these bases have been handed over to local municipalities, and the redevelopment of these bases is now progressing. In the 1988 and 1991 rounds of base closures, 42 major military installations were closed. Many of these facilities had thousands of acres of relatively undisturbed wildlife habitat (Fort Ord, Loring Air Force Base, and Pease Air Force Base -- to name a few). Some of the best-preserved wildlife habitat remaining in the United States consists of buffer zones in and around military bases, and some of these have been closed (or are in the process of being closed). Thirty-

seven¹ bases in the 1988 and 1991 rounds of closures contain 200,000 acres, much of them representing healthy and stable ecosystems (Government Accounting Office 1995, passim).

Some biologists are beginning to express concern about wildlife protection on closed military bases (Cooper and Perlman 1997). In the redevelopment of these bases, economic development, urbanization, and agricultural activities are becoming the greatest threat to wildlife communities that exist on them. These biologists and some of their colleagues believe that the protection of wildlife at closed military bases is the most pressing conservation issue facing the military today.

The Research Question

What factors appear most closely associated with the redevelopment of closed military bases in ways that encourage the protection of base wildlife? This is the research question on which this dissertation is based. In this question, protection of wildlife means the safekeeping of current wildlife populations so that they will be preserved as viable populations in their present location. Base closures present very useful case studies for determining factors that may be associated with public decision making that produces wildlife-friendly results. Two normative propositions underline this research: 1) that we as a society have a moral responsibility to minimize the impacts on wildlife during base redevelopment; and 2) in moving from military to local community management of former bases, it is

important that planning occurs in a way that honors democratic values. According to Weiss and Bucuvalas (1980), the public decision-making process is a fragmented enterprise with many actors "both inside and outside the agency [where] ... decisions are influenced by legislators, superior officials, subordinates, collateral divisions, other agencies, constituents, and clients" (20). In this study I sought to determine what local community and planning factors in this process were most closely associated with the creation of wildlife protection plans (or the lack thereof).

The literature I reviewed suggested a total of five initial factors to investigate: environmental ethical concern and activism, local community wealth, demographic and geographic characteristics, public participation, and administrative context and processes. The interviews and document analysis for the two case studies resulted in the discovery of a sixth factor: community cohesion and stability. Out of these six factors a high level of local environmental ethical concern and activism, a high level of local community cohesion and stability, and more public participation in the redevelopment process by the community surrounding the base were closely associated with positive wildlife protection planning. Each of these factors behaved in a particular manner: environmental ethical concern and activism was the initiator; local community cohesion and stability was the enabler that connected the initiator to public processes; and public participation in the planning process influenced government decision makers. Since local community cohesion and stability sat in the middle and connected a community's collective desire to

local political action, an increase in a community's cohesiveness and stability may be an important means to achieve a community's stated agenda. Therefore, in respect to communities that would like to see more wildlife protection policies implemented in their area, the data suggests that these communities should implement policies to increase community cohesion and stability.

Importance and Need for Research

Why does wildlife protection at a closed military base matter, especially to the military? When one considers that up to 17,500 plant and animal species may become extinct every year (Davis 1998, 131), wildlife protection appears very important. Wilson (1992) estimates that if the current rate of species loss continues, this human-induced extinction could approach the great natural catastrophes that ended the Paleozoic and Mesozoic eras when 60% to 90% of all species in existence disappeared. Also, with the increasing loss of wildlife on private lands, the protection of wildlife on federal lands takes on even more significance (Cooper and Perlman 1997; Ripley and Leslie 1997).

Additionally, by creating an Environmental Security Office, the Department of Defense has come to recognize the significance of environmental degradation and biodiversity preservation in regard to national security.² Environmental security is defined as "environmental issues that impact national security" (Shaw 1999). In this vein:

Some military planners now question whether a single F-15 fighter plane at \$125 million would purchase more real, enduring, and all-around security than the same sum spent on pushing back the deserts, replanting the forests, protecting farmland soil, stabilizing climate, slowing population growth, and a lengthy list of similar items. (Myers 1996, ix)

This concern about the environmental aspect of national security is becoming an increasingly important topic among national policy makers (Terry 1995; Burk 1994; Cassidy and Bischak 1993; Romm 1993; Stockholm International Peace Research Institute 1993; Romm 1992). Therefore, if the DoD wants to preserve the environment to ensure security, it should begin at its own front door, that is, closed military bases.

During the first two centuries of this nation's existence, the military had a narrowly defined mission "to defend the Constitution against all enemies foreign and domestic." However, as the world's political climate has grown more diverse and complex, identification of "enemies foreign and domestic" has also grown more diverse and complex. For example, the major wars engaged by the United States from its struggle to become an independent nation till the end of the Cold War (War of 1812, Spanish-American War, WWI, WWII, Korean War, and Vietnam) were fought against a relatively clearly defined enemy that represented a threat to American interests. In contrast, since the fall of the Berlin Wall and the end of the Cold War, clearly defined threats against the United States are fewer in number while indirect threats to American security seem to be growing (i.e., growing

instability in the Balkans). Much like the old adage that "work rises to meet the time allowed," new and unorthodox threats have risen to fill the void left by the dissolution of the Soviet Union. These new threats are directly related to new global relationships where there is an increased "interdependence in economic, environmental, political, and informational issues" (Stiner 1994, 81). In response to these new and unorthodox threats that are related to new global relationships, the military's role has evolved from one of primarily providing national defense to one of conducting international policing actions, providing peace keeping forces, and supplying humanitarian aid.

Non-military problems are now being recognized as presenting serious security threats (Myers 1996; Burk 1994; Cassidy and Bischak 1993; Romm 1993, 1992). Nevertheless, "military security has not vanished as a key element of national security, but it has certainly declined in importance relative to the issues of economic, energy, and environmental security" (Romm 1993, 1). The Gulf War was partially fought for economic and energy security reasons. When and where will wars for environmental security be fought? Environmental degradation, resource depletion, and severe pollution are non-military threats that defense theorists and policymakers now consider to be important security issues (Bidlack 1996). Before the United States considers the possibility of sending its military forces into developing nations to implement reforestation programs, we must first understand how long-term conservation strategies implemented by a military

organization can exist long after that military presence is gone. In this respect, closed bases in the continental United States can be perceived as laboratories where we can experiment with different policies to determine what factors lead to environmentally sustainable results.

I hope that by showing how redevelopment goals were met while protecting wildlife habitat in a past base closure, my research may be able to suggest methods for ensuring that the future redevelopment of other closed bases may be directed in a similar manner (a substantive theory). Many economic studies have been done on base closures (Siehl and Knight 1997; Dardia, et al. 1996; Hatcher 1994; United States Government Accounting Office reports: NSIAD-95-3; NSIAD-96(1996)-139; NSIAD-97-151; NSIAD-96-149; NSIAD-95-70; NSIAD-95-139). In contrast, except for limited wildlife surveys needed for environmental impact statements and endangered species listings, little documentation has been done on wildlife and wildlife habitat preservation at closed military bases. One of the goals of this dissertation is to help fill this gap by concentrating on wildlife protection issues at two closed military bases.

Research Methods

This research took a modified grounded theory approach to knowledge creation (Green 1998; Strauss and Corbin 1990). Grounded theory is a methodological approach that uses a cyclical process of induction, deduction, and

verification where the case subjects themselves often provide key theoretical input (Strauss and Corbin 1990; Strauss 1987). When working on a modified version of this theory, the coding of initial themes can be based upon the existing literature (Green 1998). In this way, instead of relying solely on my research subjects to suggest themes (as in a pure grounded theory approach), I went to the environmental literature for initial themes to investigate. I then took these theoretical suggestions into the field to see if they would survive encounters with real people working in the real-world scenario of base redevelopment. The theories that I investigated are directly related to the two case studies that I conducted: wildlife protection versus economic development pressures in the arena of public planning.

I have spent eight years working as an environmental engineer and commissioned officer for the Air Force. Because of this experience and my intimate knowledge of the Air Force closure process, I limited this study to closed Air Force bases (AFBs). However, the results from this study may be applicable to other military installations along with other similar redevelopment projects. I studied two AFBs using an historical comparative case study design. One base presented an example in which wildlife protection planning attained a high priority in reuse (Pease AFB, New Hampshire) while the other did not (Myrtle Beach AFB, South Carolina).

Semi-structured, open-ended interviews (both in person and by phone) were the primary data collection method. People in similar positions at the different

bases were interviewed. Data generated from the interviews were supplemented and verified by document analysis. The documents analyzed were environmental impact statements for closure, base reuse plans, public surveys, reuse committee minutes, newspaper articles, journal articles, and other pertinent documents identified in the interviews or by this researcher.

The open-ended interviews used in this study were basically the semi-structured ones as described by Whyte (1984, 1991). These interviews have a definite and distinct purpose and a limited range of topics; therefore, the interactions between the interviewees and the interviewer were like a series of discussions about a single topic (wildlife protection at closed military bases). Analysis of the interviews and documents yielded themes unique to each base. I then compared these themes (Denzin and Lincoln 1998). It is this thematic analysis that led to my policy recommendations for possible base closures conducted under any future version of the Base Closure and Realignment Acts.

Wildlife Protection, Economic Development, and Sustainability

In this research, I approached the issue of planning for wildlife protection in respect to the concept of sustainable development (Rodiek and DelGiudce 1994). This was the literature of choice for the discovery of initial factors (indicators) for investigation because it concentrates on indicators that "...reflect the interface

between social, economic, and environmental issues..." (O'Conner 1995, 91). In this dissertation, the following sustainable development definition is used: "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (Brundtland 1987, 8). This definition was chosen for two reasons. First, its emphasis on meeting the needs of future generations underscores the importance of protecting our natural resources, including wildlife. Second, this definition points to one of the largest dangers to wildlife protection: growth-driven development that substantially transforms land use patterns, and thus, wildlife habitats. The redevelopment of closed bases presented an opportunity to observe how wildlife protection does or does not occur in the public planning process when held up against this growth-driven development.

For most of this nation's history, the degradation of natural resources has been considered an inevitable consequence of economic development (Davis 1998; Owen and Chiras 1990; Richards 1986). This assumption began to be seriously challenged at the beginning of the 20th century by figures such as President Theodore Roosevelt, John Muir, Gifford Pinchot, and Aldo Leopold (Des Jardins 1997; Owen and Chiras 1990). For example, "Pinchot and Roosevelt epitomized the conservation movement of the turn of the century. Its tenets were protection of American natural resources for enjoyment and use" (Davis 1998, 192). In contrast, figures such as John Muir and Aldo Leopold promoted wilderness protection for its

own sake or for use as public parks. What the two sides of this management versus preservation debate had in common was the belief that the natural environment did not have to be completely sacrificed to ensure continued economic development.

More recently, the notion that economic development is always a zero-sum game in competition with environmental quality has been even more significantly challenged through the current emphasis on sustainability and sustainable development. Since concerns about protecting wildlife on closed military bases center on new economic development, urbanization, and agricultural activities (Cooper and Perlman 1997), and since some of the sustainable development literature specifically addresses economic, social, and environmental interactions (O'Conner 1995), a review of this literature was a natural place to start my modified grounded research.

Structure of the Dissertation

This dissertation opened with an introduction that stated the research question, accounted for its importance, and explained the need for research. Chapter two reviews the recent history of base closures in the United States, concentrating on the formulation and implementation of domestic military base closure and conversion policy. In chapter three I further describe the modified grounded theory approach to knowledge creation and how it was used in the comparative case studies. Also presented are selection criteria for the pilot study

and two case studies. I then go into my literature review, explaining how this review revealed five initial factors for investigation. I discuss the measurements used to gauge these factors/indicators, the questions asked, and the documents reviewed to gauge and evaluate their presence. Then the coding used to identify these themes (indicators and their measurements) is presented. The chapter is ended with a short description of the pilot study at Lowry Air Force Base and how it suggested new measurements for the case studies.

Chapter four presents a brief history of Myrtle Beach in South Carolina and analyzes the Myrtle Beach interviews and documents in respect to chosen factors. From this factor narrative, I build a factor model of the reuse planning process at Myrtle Beach in respect to the protection of base wildlife. Chapter five presents a comparable history, analysis, and model for Pease Air Force Base in New Hampshire in respect to its different wildlife status outcome. In conclusion, chapter six discusses the new that arose from the case studies. This chapter also contains a comparative analysis of the two case studies, a discussion of the results, makes some policy recommendations, and suggests areas for future research.

Endnotes

¹ The 37 bases are:

1. Army Materials Technology Laboratory, Massachusetts
 2. Bergstrom AFB, Texas
 3. Cameron Station, Virginia
 4. Castle AFB, California
 5. Chanute AFB, Illinois
 6. Chase Naval Air Station, Texas
 7. Davisville Naval Construction Battalion Center, Rhode Island
 8. Eaker AFB, Arkansas
 9. England AFB, Louisiana
 10. Fort Benjamin Harrison, Indiana
 11. Fort Devens, Massachusetts
 12. Fort Ord, California
 13. Fort Sheridan, Illinois
 14. Fort Wingate Army Depot, New Mexico
 15. George AFB, California
 16. Grissom AFB, Indiana
 17. Jefferson Proving Ground, Indiana
 18. Lexington Army Depot, Kentucky
 19. Long Beach Naval Station (NS)/Naval Hospital, California
 20. Loring AFB, Maine
 21. Lowry AFB, Colorado
 22. Mather AFB, California
 23. Moffett Naval Air Station (NAS), California
 24. Myrtle Beach AFB, South Carolina
 25. Norton AFB, California
 26. Pease AFB, New Hampshire
 27. Philadelphia/NS/Naval Hospital/Naval Shipyard, Pennsylvania
 28. Presidio of San Francisco, California
 29. Puget Sound NS (Sand Point), Washington
 30. Richards-Gebaur Air Reserve Station, Missouri
 31. Rickenbacker Air Guard Base, Ohio
 32. Sacramento Army Depot, California
 33. Tustin Marine Corps Air Station, California
 34. Warmister Naval Air Warfare Center, Pennsylvania
 35. Williams AFB, Arizona
 36. Woodbridge Army Research Facility, Virginia
 37. Wurtsmith AFB, Michigan
- (Government Accounting Office 1995, Passim)

² The components and budgets for the Air Force environmental security program are listed below in millions of dollars for FY 1998, FY 1999, and FY 2000; all dollar amounts are in January 1999 constant dollars:

	1998	1999	2000 (proposed)
Cleanup (active bases)	377	371	377
Cleanup (closed bases)	256	148	130
Compliance	391	409	388
Conservation	40	43	44
Pollution Prevention	63	46	91
Environmental Technology	8	6	0
Totals	1,135	1,025	1,030

Department of Defense. 1999. *FY2000 Environmental Security Budget, Defense Department's fiscal year 2000 budget proposal*. Washington, D.C.: Government Printing Office.

CHAPTER 2

THE FORMULATION, IMPLEMENTATION, AND RECENT HISTORY OF DOMESTIC MILITARY BASE CLOSURE AND CONVERSION POLICY

We are under the influence of previous generations of our ancestors and our society. At the same time we hold within us the seeds of all future generations.

Thich Nhat Hanh, *Vietnam: Lotus in a Sea of Fire*

Base Closures

Recent base closures have their roots in the military cutbacks that occurred after WWII, the Korea War, and Vietnam Conflict; based upon defense spending as percent of Gross Domestic Product (GDP), these cutbacks were much more draconian than today. During the 1988-1995 closures, the amount of GDP spent by the military fell by 2.9%. In contrast, after WWII, the percent of GDP spent on military functions fell from a high of 39.3% in 1944 to a low of 3.7% in 1948 (a 35.6% difference). After the Korean War, the amount of GDP spent on military operations fell by 4.3%, and after Vietnam, it fell an additional 4.8% (Defense Conversion Commission 1992, 11). Because of these cutbacks, many bases were closed. Finally, in the late 1970s, many of the bases that had not been closed after Vietnam were deemed unnecessary and considered for closure.

The Decade When No Large Bases Closed, 1977-1987

In early 1976, President Ford made an announcement that there would be 160 closures and realignments starting in March of that year (Dering 1996, 10). In response, Congress attempted to greatly restrict the DoD's ability to close bases. For example, the 1977 fiscal military construction bill had a provision that would have affected any DoD proposal to close a domestic base employing 300 or more civilians. The DoD would have been required to take four steps before closing a base: First, notify the armed services committees in both chambers of the proposed closure action; second, wait nine months while assessing the economic, strategic, environmental, and operational consequences of the proposal; third, submit the results of these assessments to the appropriate committees; and fourth, wait an additional three months for approval (Dering 1996, 13).

These requirements could have been used to substantially delay closures because they mandated public hearings in local communities and required detailed environmental impact statements that were open to judicial challenge. President Ford vetoed the bill. However, he signed a compromise bill that reduced the advance notice to 60 days but kept all other provisions intact (P.L. 94-431). Finally, these terms were made permanent in the 1978 military construction bill (P.L. 95-82):

...effectively preventing the Department of Defense from closing any of its major bases. Each time the Secretary [of Defense] initiated a closure or realignment, under the statute's procedures, Congress blocked it. For the next decade, the Department of Defense was forced to keep open many unneeded bases. (Ginsberg, et al. 1993, 171)

Because of this, any base with more than 300 civilians was not closed for a decade (1977-1987). However, by the end of 1987, the DoD, facing more budget reductions, was again looking for ways to economize.

Four Rounds of Closures, 1988-1995

By 1987, the military had far too many bases. Representative Dick Armey (R. TX, later to become the chair of the House Appropriations Committee), who had no bases in his district, came within four votes of winning a floor amendment to the 1988 defense authorization bill that would have created an independent panel to close bases (Cong. Rec. 1987, 11919-25). Armey proposed the same measure a year later. This measure went through drastic changes until coming full circle on 12 July 1988 when the House passed a substitute amendment that replaced the entire text of the bill (Cong. Rec. 1988, 17777). Significant changes from Armey's original bill were that (1) Congress reserved the right to reject the entire closure list by majority vote in both chambers; (2) closed bases would have partial exemption to environmental regulations; (3) and the commissioners would be nominated by the Secretary of Defense, pending Senate confirmation (Dering 1996, 17). With this bill, Congress finally agreed to allow base closures, suspending the congressional moratorium (Ginsberg, et al. 1993, 171). Armey's bill was well received because in the late 1980s Congress was looking for ways to cut the budget and Armey's bill

looked promising since it provided a way to deflect the political heat from base closures while reducing budget expenditures (Hatcher 1994).

The suspension of the earlier code and the passage of Armey's bill resulted in the creation of the Defense Authorization Amendments and the Base Closure and Realignment Act of 1988. This Act provided the military with a single opportunity to close and realign major military bases. Under this 1988 Act, a total of 86 bases were closed, of which 16 were considered major military installations.¹ Out of these 16 major bases, five were Air Force bases.

Base closure recommendations were made using a four-step process, with a different decision-maker taking each step:

...the Secretary of Defense, the Defense Base Closure and Realignment Commission [BCRA Commission], the President and, finally the Congress. By establishing these multiple phases with discrete actors the Act strikes a delicate balance between the executive and the legislative branches. (Ginsberg, et al. 1993, 173)

The 1988 selection of bases to be closed used the process above. The Secretary of Defense initiated the process by creating a force classified structure plan that assessed probable threats to national security during the next six fiscal years (1989-1995) and estimated the funding needed to meet them.² Once this assessment was completed, the various branches of the military estimated the number of bases it needed to close in order to meet the new fiscal and security reality.

Next, this estimate was submitted to the 1988 Closure Commission (November 1988). The 1988 Commission was an independent eight-person body

charged with creating the actual closure list. In December of 1988, the Commission selected 86 bases for closure. After that, the list was sent to President Bush for approval or disapproval (January 1989). The President had only two weeks in which he could approve or disprove of the list in its entirety. The President approved the list and then sent it to Congress, which had 45 legislative days to enact a joint resolution disapproving of the entire package. In this final stage of the process, Congress did not enact such a resolution; therefore, the 1988 closure recommendations became final and binding (Cong. Rec. 1989, 6871).

This base selection process for the 1988 round of closure became the blueprint for base selection in the next three rounds of closure. Once bases were selected, the DoD had up to six years to complete the actual closures. In this final disposal process, there was a statutorily established hierarchy of priority in the reuse of closed facilities: DoD agencies first, other federal agencies second, state agencies third, local municipalities fourth, and private organizations last (unless there were special legal requirements, such as a prior existing lease agreement between the base and the surrounding community).

With the fall of the Berlin wall in 1989 and the ending of the Cold War in 1990 (the Soviet Union did not officially disband until Gorbachev resigned December 26, 1991), three more rounds of closure were authorized under a new Closure Act, the Defense Base Closure and Realignment Act of 1990. This Act differed from the 1988 Act in three ways. First, the new Commission had to hold their deliberations and hearings in public. Second, the Commission had to start its review of bases from a list submitted by the Secretary of Defense. In the previous round they created the list from scratch (with DoD help). Furthermore, the

Commission could only modify the Secretary's list when it showed that the military had deviated substantially from the established criteria. And third, the General Accounting Office was made available to the Commission to assess DoD's methods; again, as under the previous Commission, the DoD still provided a great deal of assistance (Dering 1996, 20).

In these three rounds, 82 additional major military installations were closed, including 24 major Air Force installations (Siehl and Knight 1997, 4). Table 2.1 summarizes major Air Force closures in the 1988, 1991, 1993, and 1995 rounds. Table 2.1 also shows that the average large base closed by the Air Force in the past four rounds of closures was usually around 3,000 acres in size, had about 1,300 civilian workers, and took about three years to close. My study centered on these types of military installations.

The workforce at most military facilities is, roughly, 15 to 45 percent civilian, depending on the type of facility (Beech 1998). With this in mind, the size of an Air Force base that met the minimum requirement of having 300 civilians usually had a minimum of 3,000 people (including military and their dependents), over a 100 buildings, and over 1,000 aircraft, vehicles, and mobile support equipment. These were sizable installations.

Base Closures in the Future?

In the summer of 1997, the Department of Defense released a draft of its Quadrennial Defense Review report. This report is a periodic review of military

Table 2.1
Major Air Force Closures 1988, 1991, 1993, 1995

<u>Base</u>	<u>Acres</u>	<u>Civilian jobs lost</u>	<u>Actual/projected closure date</u>
1988			
Chanute, IL	2,132	1,035	September 1993
George, CA	5,068	506	September 1994
Mather, CA	5,716	1,012	September 1993
Norton, CA	2,115	2,133	March 1994
Pease, NH	4,257	400	March 1991
1991			
Bergstrom AFB, TX	3,216	942	September 1993
Carswell AFB, TX	2,579	884	September 1993
Castle AFB, CA	2,777	1,149	September 1995
Eaker AFB, AR	3,286	792	December 1992
England AFB, LA	2,282	697	December 1992
Grissom AFB, IN	2,722	807	September 1994
Loring AFB, ME	9,482	1,326	September 1994
Lowry AFB, CO	1,866	2,290	September 1994
Myrtle Beach AFB, SC	3,744	799	March 1993
Richards-Gebaur, MO	428	569	September 1994
Rickenbacker, MO	2,015	1,129	September 1994
Williams AFB, AZ	4,043	781	September 1993
Wurtsmith AFB, MI	2,205	705	June 1993
1993			
Griffiss AFB, NY	2,488	1,191	September 1996
Homestead AFB, FL*	2,221	289	March 1994
K.I. Sawyer AFB, MI	3,200	788	September 1995
March AFB, CA	6,594	997	September 1995
Newark AFB, OH	70	1,760	September 1996
Plattsburgh AFB, NY	4,865	352	September 1995
1995			
Kelly AFB, TX**	4,757	10,912	July 2001
McClellan AFB, CA*	3,763	243	July 2001
Onizuka AS, CA**	35	1,039	September 2000
Reese AFB, TX	2,987	1,238	September 1997
Roslyn ANGB, NY*	52	45	September 1997

* Note - These had less than 300 civilian positions, but they were considered major closures based upon alternate criteria (Government Accounting Office 1994, 41).

** Note - These were called realignments, which caused the loss of over 300 civilian jobs and cancellation of most operations (Government Accounting Office 1994, 41).

strategy, threats, and future needs concerning the development of the United States armed forces. This report emphasized that levels of military forces, facilities, and operations had to be scaled back to ensure future ability to modernize and upgrade the military. The report pointed out two key actions that the DoD deemed necessary to save money.

First, the military must reduce current spending by conducting procurement reform, privatization, and force reductions. Second and most important, additional bases needed to be closed: since 1985, total military spending has decreased by 38%, but the infrastructures -- bases, depots, and the like -- were only 21% smaller. In response to this, Congress voted to delay base closures (66 to 33) until a congressional report analyzing the benefits of previous base closures was completed (*The Washington Post* 1997, A18).

The possibility of base closures in the immediate future was again cast into doubt in June of 1998 when Congress cut closure funding in the FY 99 Defense Authorization Bill. Also, in a 48-45 vote, the Senate approved an amendment that expressed the sense that no further rounds of closures should be authorized until pending closure actions were completed (National Association of Installation Developers 1998a, 6). However, according to a Pentagon press release, Secretary William Cohen has not given up on the hope of achieving additional rounds of closure in the future, mainly in the early part of the next century (National

Association of Installation Developers 1998a, 6). On 13 May 19, 1999 "A Senate panel rejected appeals by the Pentagon's civilian and military leaders for more base closures, voting 11 to 9 yesterday to defeat a proposal that would have authorized a new round of closings in 2001" (Graham 1999, A8). Congress then voted 60 to 40 in support of the Committee's measure, dashing DoD hopes for base closures in 2001 (Dewar 1999, A13). These actions by the Senate Armed Services Committee and Congress marked the third year that the DoD's bid for more closures has failed.

Because of these measures, prospects for future military closures do not look promising. Nevertheless, the debate still continues, and as of 1999, Cohen is still pushing to close bases because "...this measure if taken, would eventually generate at least \$4 billion a year in savings that could be spent on pay, retirement, readiness and quality of life" (Evans and Novak 1999, 89). With the continued push by the DoD to achieve fiscal balance through base closures, and if the deficit becomes an issue like it did in the late 1980s when base closures were a reality, then possible funding may be found, and future military closures may again become possible (Beech 1998). Moreover, the 1998 general elections clearly indicate that voter -- and therefore congressional -- priorities continue to be subject to change. Therefore, additional closures may or may not occur, depending on the nation's economic conditions, security situation, and voter and congressional moods.

Base Closure Environmental Issues

In the closure process, attention given to environmental issues has concentrated on environmental assessments and the cleanup of hazardous waste (Bidlack 1996; GAO/NSIAD-95-70; Hatcher 1994). The base closure laws require that the DoD "comply with environmental laws for disposal of real property" (GAO/NSIAD-95-70, 2). In regard to this, the four sets of federal environmental regulations given the most attention in the *DoD Base Reuse Implementation Manual* are the National Environmental Policy Act (NEPA), the Comprehensive Environmental Response, Compensation, and Liability Act (Superfund), Resource Conservation and Recovery Act (RCRA), and the Endangered Species Act (ESA) (Department of Defense 1996, A1-10). Each one of these laws require that certain actions be taken in the reuse planning process. Out of these four federal environmental laws, only one, the ESA, concentrates on wildlife protection issues. The ESA (as the name implies) is designed to protect federally listed endangered species. It does not require protection of habitat that does not have federally listed endangered species living on them.

Neither Pease nor Myrtle Beach (my two case study bases) has a federally listed endangered species currently living within their boundaries; although species of special concern are known to pass through both. At Pease, the American Bald Eagle is known to roost in the undeveloped areas in the winter months (United States Air Force 1990; 1991). At the time of Pease's closure, the Bald Eagle was a federally listed endangered species. In 1995, it was reclassified as "threatened," which is a less critical category, and there is talk of taking it off the threatened list

this summer (Katz 1999). The eagles did not nest on the base; therefore, the preservation of this land did not automatically fall under the ESA.

At Myrtle Beach, American Alligators are often found in the irrigation ditches next to the runways (Suza 1998; Williams 1998). In the 1980s, the American Alligator was a threatened species that was taken off the list later that decade (Wildinson and Rhodes 1997). Much like the Bald Eagle at Pease, this species did not nest on the base and because of this, the ESA did not take precedence in reuse planning. In contrast, bases like Fort Ord in California that has some federally listed endangered species living on it do fall under the ESA (United States Army Corps of Engineers 1996). The selection of bases that did not have federally listed endangered species living on them was intentional because I wanted to see what factors were associated with wildlife protection when the planning bodies had a full range of options available to them. A habitat given special protection under the ESA from a federally listed endangered species living on it would have limited possible reuse planning outcomes.

The Reuse Planning Process

Once a base was selected for closure, its reuse planning process began. Reuse planning consisted of many activities, and there were two main players at this early stage -- base military personnel and the reuse planning committee (reuse committee is a generic name). The reuse committee usually consisted of local, state, county, and/or city representatives. These representatives were usually state legislators, county officials, city councilmen, or representatives appointed by them. Also, these reuse committees usually had sub-committees centered on specific

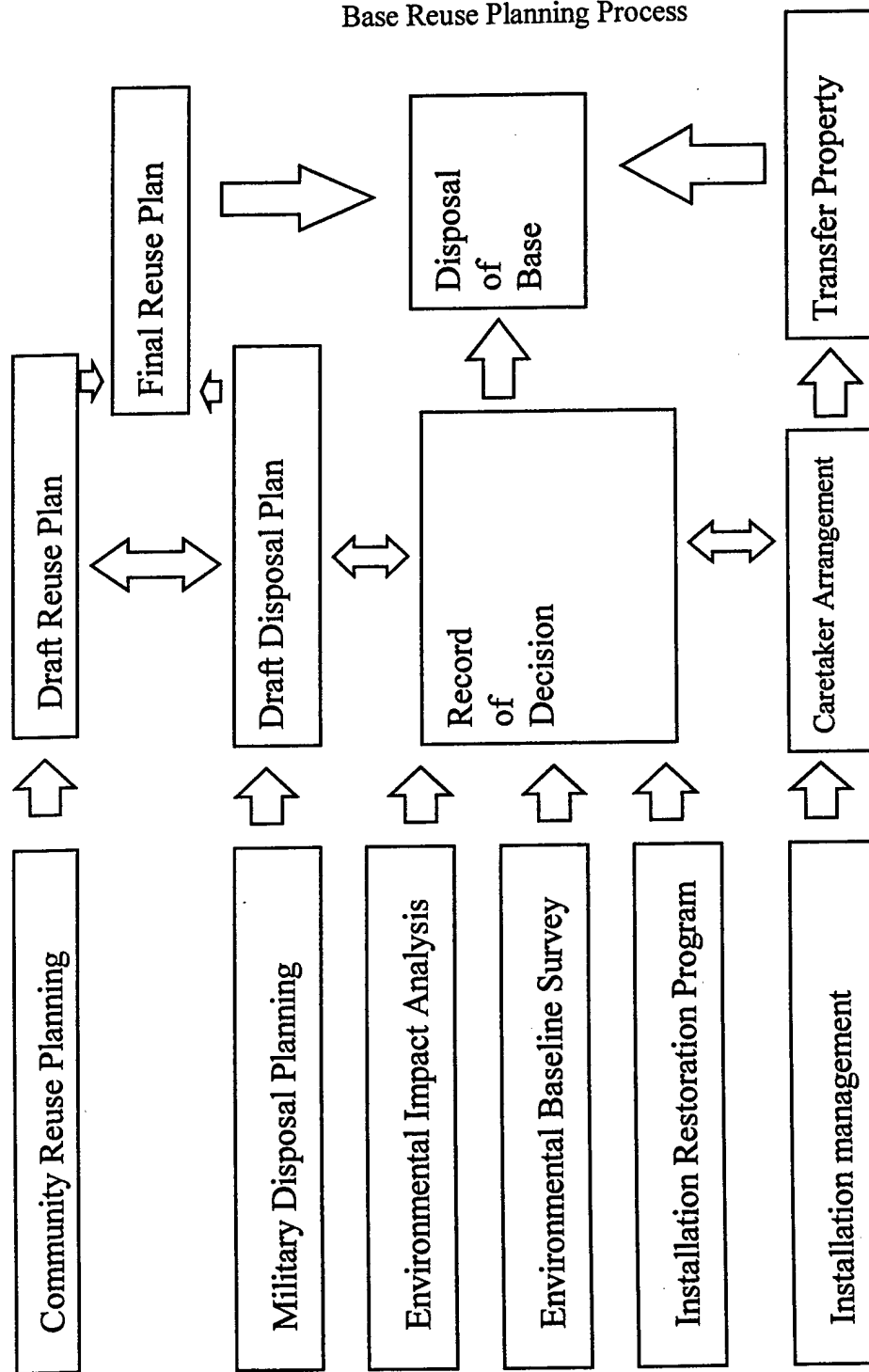
issues consisting of local citizens and interested parties that provided advisory information for the committee. These specific issues usually covered the following topics: base reuse planning, economic development, human resources, environment, housing, health, and education (President's Economic Adjustment Committee 1994, 10). The first thing usually done by a reuse committee was to create a redevelopment plan. Upon completion of the plan, the planning committee was usually dissolved and a redevelopment authority (also a generic title) established.

At same time that the reuse committee was formed, base military personnel usually started work on or updated the following documents and programs:

- 1) The Environmental Impact Statement
(an NEPA requirement whenever a large base was closed),
- 2) The Natural and Culture Resource Plan
(partially to determine if federally listed endangered species live on base),
- 3) The Environmental Baseline Survey
(an NEPA/Superfund/RCRA-related requirement), and
- 4) The Installation Restoration Program
(a Superfund/RCRA-related requirement).

In addition to these environmental activities, base personnel identified installation property that was excess to any continued DoD need, inventoried personal property, relocated active mission elements, and performed caretaker maintenance on base facilities. All of these steps were taken as soon as possible after the closure announcement and concurrently with each other and with the steps taken by the reuse authority (a generic term for the reuse committee and redevelopment authority). All of the steps are summarized in figure 2.1 (next page).

Figure 2.1
Base Reuse Planning Process



Both the Closure Act of 1990 and the Redevelopment Act of 1994 identified specific reuse planning requirements and time lines (Pub. L. 101-510, 10 U.S.C., Section 2687, and Pub. L. 103-421, 32 CFR, Part 1760). Many of these requirements related to ways of soliciting interest in the installation, identifying personal property needs, and preparing and submitting the reuse plan. To facilitate the reuse plans and base redevelopment, the DoD, through its Office of Economic Adjustment, provided grants. Furthermore, grants from other federal agencies were also made available for reuse planning and redevelopment. Table 2.2 shows all grants (as of 1995, in 1995 dollars, listed in descending totals) provided for 17 major Air Force bases. The Median and Mean of federal funding made available for reuse authorities in 1998 dollars was \$7,915,563 and \$15,327,780, respectfully.

Reuse Planning and Redevelopment Environmental Issues

As in the base closure process, the main environmental issues in base redevelopment were the completion of the Environmental Impact Statements (EISs) for the closure and redevelopment of bases (an NEPA requirement) and the restoration of hazardous waste sites (Bidlack 1996; GAO/NSIAD-95-70; Hatcher 1994). The level of restoration depended on whether the base was a Superfund site or not. If a base was considered a Superfund site (listed on the National Priority List by the Environmental Protection Agency), then it had to be cleaned up according to requirements under the Comprehensive Environmental Response,

Table 2.2
Grant Summaries for Selected Air Force Closure Bases

Base(year)	\$Total OEA ^a	\$Total FAA ^b	\$Total EDA ^c	\$Total DOL ^d	\$Total
Bergstrom ('91) ²	200,000	110,841,266	0	1,228,260	112,269,526
Myrtle Beach ('91)	1,180,006	18,948,100	3,500,000	925,000	24,553,106
Pease ('88)	859,790	7,774,618	10,200,000	0	18,834,408
Norton ('88)	726,000	3,438,638	6,825,000	2,916,000	13,905,638
Wurtsmith ('91)	1,226,318	508,000	9,717,500	1,250,000	12,701,818
England ('91)	2,174,047	149,850	6,411,800	500,000	9,235,697
George ('88)	533,648	118,638	6,525,000	1,000,000	8,177,286
Castle ('91)	920,706	2,143,000	4,500,000	0	7,563,706
Chanute ('88)	962,978	937,830	2,500,000	3,000,000	7,400,808
Williams ('91)	1,515,339	3,018,000	587,500	2,000,000	7,120,839
Loring ('91)	1,903,263	50,000	2,267,000	2,100,000	6,320,263
Eaker ('91)	2,287,786	90,000	1,962,600	0	4,340,386
Mather ('88)	933,670	238,526	75,000	1,750,000	2,997,196
Lowry ('91)	1,771,525	0	112,500	800,000	2,684,025
Rickenbacker ('91)	111,000	1,110,803	0	684,545	1,906,348
Richard-Gebaur ('91)	241,985	1,572,000	0	0	1,813,985
Grissom ('91)	1,139,528	0	50,000	612,500	1,802,028

a- Office of Economic Adjustment, b- Federal Aviation Administration
c- Economic Development Administration, d- Department of Labor
(GAO/NSIAD-95-139 1995, 116)

Compensation; and Liability Act. If the base was not a Superfund site, then restoration could be done according to Resource Conservation and Recovery Act requirements (usually less stringent). Both of my case study bases had EISs performed, but only Pease was listed as a Superfund site. These three areas of environmental concern had very little to do with wildlife protection.

Again, as in the closure process, the only federal environmental law in the redevelopment process that concentrated on wildlife issues was the ESA. Since

neither of my case study bases had federally listed endangered species living on them, the ESA did not take precedence in the redevelopment process.

Critiques of Base Closure and Redevelopment

How has this closure and redevelopment process fared? In answer to that question, a great number of documents have been generated, ranging from military evaluations and Government Accounting Office (GAO) reports to academic endeavors like this one.³ The vast majority of these documents, not surprisingly, are centered on fiscal concerns (Bradshaw 1999; Siehl and Knight 1997; Dardia et al. 1996, Hatcher 1994; United States Government Accounting Office reports: NSIAD-95(1995)-3; NSIAD-96-139; NSIAD-97-151; NSIAD-96-149; NSIAD-95-70; NSIAD-95-139). This reflects Congress's long-time concern about base closures having adverse economic impacts on their local communities. But in document after document, investigators have discovered that about 10 years after closure former bases have often generated more civilian jobs and local income than if the base had continued to operate (Bradshaw 1999; Dardia et al. 1996; Hatcher 1994; President's Economic Adjustment Committee 1986; GAO/NSIAD-97-151). To test some of these assertions, I went to the Air Force Base Conversion Agency web site that keeps a running total of new jobs generated since each base was closed and performed my own job count. Out of the 18 major Air Force bases that were closed in 1988 and 1991 (see table 2.1), nine base have created more civilian jobs than they

lost, two have generated about the same number of civilian jobs, and five bases have generated about half as many jobs (Air Force Base Conversion Agency 1999a). See table 2.3 for a summary of civilian jobs lost, gained, and percent changed based upon job lost at closure.

Table 2.3
Civilian Jobs Lost and Gained in the 1988 and 1991 Closures

<u>Base (year)</u>	<u>Civilian jobs lost</u>	<u>Jobs created</u>	<u>% change</u>
Chanute (1988)	1,035	1,500	+ 45%
George (1988)	506	706	+ 40%
Mather (1988)	1,012	2,230	+ 120%
Norton (1988)	2,133	2021	- 5%
Pease (1988)	400	1,682	+ 320%
Bergstrom (1991)	942	263	- 72%
Carswell (1991)	884	806	- 9%
Castle (1991)	1,149	2,209	+ 92%
Eaker (1991)	792	450	- 43%
England (1991)	697	1,483	+ 113%
Grissom (1991)	807	402	- 50%
Loring (1991)	1,326	706	- 47%
Lowry (1991)	2,290	990	- 53%
Myrtle Beach (1991)	799	1,080	+ 35%
Richards-Gebaur (1991)	569	370	- 35%
Rickenbacker (1991)	1,129	723	- 36%
Williams (1991)	781	1,704	+ 118%
Wurtsmith (1991)	705	1,122	+ 59%

All in all, a total of 17,956 civilian jobs were lost when these 18 bases closed, and since then, a total of 20,447 new civilian jobs have been created (a 14% increase).

Furthermore, a 1986 report by the President's Economic Adjustment Committee found that out of 100 bases that were closed between 1961-1986 "...new jobs [128,138] more than replaced the loss of 93,424 DoD civilian jobs ...

communities can recover effectively from base closures. Adjustment can provide long-term opportunities -- not necessarily a crisis" (i). Perhaps Bradshaw, in his 1999 article "Communities not fazed: Why military base closures may not be catastrophic," said it best:

Predictions that military base closures will be catastrophic to communities have generally been exaggerated. While many communities face periods of decline after a base closure or fail to grow as rapidly as they might have otherwise, initial impacts on the community are often surprisingly milder than expected ...(193)

There has been some fiscal criticism in regard to the base conversion process itself. For example, the military has been criticized for reaping smaller cost savings from the closures than it had originally predicted, especially the Air Force (GAO/NSIAD-97-151; GAO/NSIAD-96-67; GAO/NSIAD-95-133).

Another major criticism has been the perceived sluggishness of the redevelopment process, especially the length of time taken to hand base property over to local authorities. This criticism came from two primary sources. First, local municipalities that were responsible for the creation and implementation of base reuse plans consistently complained about the sluggish response from military agencies responsible for the disposal of base property. In the case of the Air Force, the federal agency which had (and has) primary responsibility for base disposal was, and still is, the Air Force Base Conversion Agency (AFBCA). This was an issue that became very apparent in my interviews with members of base reuse committees and in my analysis of pertinent newspaper articles.

Another source for these concerns about the sluggishness of the conversion process came from the federal government itself, mainly the GAO, which was saddled with the responsibility of evaluating the conversion process. The GAO found that "cleanup actions may delay property transfer and reuse, hurt the economic revitalization of communities affected by the closure process, and harm the environment and health" (GAO/NSIAD-97-151, 30). Other GAO reports presented similar findings (GAO/NSIAD-95-133 and GAO/NSIAD-96-149). These concerns President Clinton's July 1993 base reinvestment plan, designed to speed up the recovery of communities affected by base closures. This reinvestment plan was called the "Five Point Plan." As the title implies, this plan had five main actions associated with it:

1. Give priority to local economic redevelopment plans,
 2. Provide additional transition and redevelopment assistance to local workers and communities,
 3. Speed up environmental cleanup activities,
 4. Provide transition coordinators at major closure bases, and
 5. Allocate more funds for economic redevelopment planning grants.
- (Environmental Protection Agency 1996, 1)

Part three developed into a DoD program titled "Fast-track Cleanup." The proclaimed goal of this program was to "accelerate cleanup at closed military bases so that the property could be available for transfer to the local community quickly, while still protecting human health and the environment" (Department of Defense 1995, i).

The main environmental attention in the closure and redevelopment of closed military bases centered on assessment and restoration of contaminated land so it could be quickly used for local economic development. However, some biologists have begun to express their concern about wildlife protection on closed military bases (Cooper and Perlman 1997). In the redevelopment of closed bases rapid economic development, urbanization, and agricultural activities have threatened the wildlife populations that exist on these former bases. The only wildlife populations that are given regulatory protection are federally listed endangered species (under the ESA). Nevertheless, other wildlife populations do exist, and the habitat for these populations often represents the last remaining naturally functioning ecosystem in the area, especially for bases in suburban or urban areas (Cooper and Perlman 1997). Therefore, these biologists and their colleagues believe that the preservation of wildlife at closed military bases is the most pressing conservation issue facing the military today.

Endnotes

- ¹ Major (large) closure bases are ones that:

[have] 300 or more civilian employees authorized to be employed, or any realignment with respect to any installation involving the reduction of 50 percent or 1,000 (whichever is smaller) of the civilian employees authorized to be employed at the base. (Ginsberg et al. 1993, 173)

- ² Bergstrom is a good example of a preexisting lease on a military base and how this type of lease arrangement can impact redevelopment funding. When the city of Austin, Texas sold the land that would one day become Bergstrom to the Air Force, the Air Force agreed that if they ever closed the base they would hand the land over to the city of Austin. In September of 1993, the city of Austin got the base back and immediately started to redevelop it in such a way that it would replace their older, aging, and city-encroached airport. This is why the FAA provided a \$110,841,266 grant/loan and why Bergstrom's total (\$112,269,526) was so much higher than all the other bases.
- ³ There are serious questions about the degree to which the DoD used national security concerns as the only criteria for closure. Dering's 1996 research strongly suggests that that politics also played a critical role in closure decisions as the DoD sought to punish "non-cooperative" members of congress. Since my research concentrates on the redevelopment of closed bases and not their selection, this will be the last time I mention this.

CHAPTER 3

RESEARCH METHODS AND SUPPORTING LITERATURE

We abuse land because we regard it as a commodity belonging to us. When we see land as a community to which we belong, we may begin to use it with love and respect.

Aldo Leopold, *Our Environment*

Modified Grounded Theory

There are two basic types of research methods available in public administration: qualitative and quantitative (O'Sullivan and Rassel 1995; Creswell 1994; White and Adams 1994). According to Creswell (1994), a qualitative study is "...an inquiry process of understanding a social or human problem, based upon building a complex, holistic picture, formed with words, reporting detailed views of informants, and conducted in a natural setting" (2). In contrast, a quantitative study "...is an inquiry based upon testing a theory composed of variables [input and output], measured with numbers, and analyzed with statistical procedures, in order to determine whether the predictive generalizations of theory hold true" (Creswell 1994, 2). Because I was looking for factors associated with a particular outcome (not necessarily causing that outcome) and because a holistic approach also provided a better means for practitioners to understand the interactions of different factors without relying on an education in statistics, a qualitative study seemed to

hold the most promise. I was also concerned that in using a deductive quantitative approach, the purpose of which was to test the applicability of one or two possible theoretical explanations for base closure impact on wildlife, I might miss several other factors.

Qualitative Methods

Which qualitative method to use? There are many inquiry strategies to choose from: Case Studies, Ethnography, Participant Observation, Phenomenology, Ethnomethodology, Interpretive Practice, Grounded Theory, Biographical, Historical, Clinical Research, or a combination of these (Denzin and Lincoln 1994). There are also many methods for collecting and analyzing qualitative empirical data for these inquiries: Interviews, Observational Techniques, Document Interpretation, Visual Methods, Personal Experience Methods, Narrative Analysis, or a combination of these (Denzin and Lincoln 1994). Several readings in qualitative methods informed this choice (Denzin and Lincoln 1998; Kvale 1996; Denzin and Lincoln 1994; Miles and Huberman 1994; Whyte 1991; Strauss and Corbin 1990; Yin 1989; Kirk and Miller 1986; Whyte 1984; Glaser and Strauss 1967). On reflection, a historical case study approach was chosen since it presented the possibility, through in-depth analysis, of discovering a wider array of factors that might be at work rather than a less in-dept look at a larger number of bases (Yin 1989). Since some closed bases produced wildlife protection plans in their redevelopment process and others did

not, a comparative approach also seemed a good way to double check findings and to investigate different outcomes for the same factors. Because of these reasons a historical comparative case study design was selected. Now, how was the data going to be collected and knowledge created? The eventual choice was modified grounded theory, for the reasons given below.

Grounded Theory

Grounded theory can be traced back to Glaser and Strauss' landmark book, *Discovery of Grounded Theory* (1967). This was followed by Glaser's *Theoretical Sensitivity* in 1978, Strauss and Corbin's *Basics of Qualitative Research* in 1990. Grounded theory is qualitatively based. According to Strauss and Corbin (1990) qualitative means a "nonmathematical analytic procedure that results in findings derived from data gathered by a variety of means" (Strauss and Corbin 1990, 18).

Why this method? My research question lended itself to this approach because I was looking at the intricate relationships between social forces (the community around a closure base), government institutions (the reuse committee, the DoD, and local municipalities), and the environment (wildlife protection issues). A qualitative method such as grounded theory holds promise for uncovering "...the intricate details of phenomena that are difficult to convey with quantitative methods" (Strauss and Corbin 1990, 19). Additionally, this type of research encourages development of subsequent "substantive theory" (Strauss and Corbin

1990, 31) that may be applied to the study of similar policy issues, thereby becoming useful to practitioners. Finally, some sustainable theorists themselves have promoted grounded theory-type procedures because they are “convinced of the necessity of tying theory to practice by closely combining research, development, and field-testing” (IUCN Assessment Team 1995, 153).

Grounded theory’s starting point is non-categorical field observations, allowing respondents to portray in their own words the issue under study. From these initial observations, the researcher then derives descriptive categories. Successive iterations of this process eventually lead to theoretical conclusions. Strauss and Corbin’s 1990 book deviated from this original approach in that it recommended the organization of initial categories, using existing literature, before going into the field. This has come to be known as “modified grounded theory.” A grounded theory, whether modified or not, is one that is inductively derived from the study of the phenomenon it represents. It is developed and verified through systematic data collection and analysis of data pertaining to that phenomenon. Therefore, it is a reciprocal approach where one does not begin with a theory and at a later time prove it. Rather, one begins with an area of study and the theory is allowed to emerge.

In my study, Glaser’s “pure” grounded theory would not have been practical because his approach requires reiterative site visits to re-interview respondents in the wake of categories derived from the initial interview data, which was something

that I had neither the time nor resources for. My proposal's literature review already suggested a significant amount of factors and categories for investigation; therefore, Strauss and Corbin's modified grounded theory approach presented a much better fit. This review led to categories that I used as starting points in my interviews. In this way, the sustainable development literature reviewed in later sections of this chapter are used to stimulate theoretical sensitivity by providing concepts (factors/indicators) and relationships (emerging themes) which I investigated by conducting interviews at closed military bases. In turn, the interviewees suggested new themes, measurements, and questions that caused me to return to the theoretical literature, base documents, and to ask additional questions in later interviews. If enough respondents across the respondent groups independently alluded to the same factor or dynamic, it became an excellent candidate for a thematic nexus in my theory building. This is why I also used the open-ended ethnographically oriented interview approach portrayed in Whyte's (1984) *Learning From the Field*.

Base Selection for Case Studies

In this dissertation, two closed bases were comparatively studied in an attempt to discover how local communities were redeveloping them, with attention to the impact of redevelopment on base wildlife, and what factors were associated with these results. After eight years working as an environmental engineer and

commissioned officer for the Air Force, I had access to data related to Air Force closures. Therefore, I limited my research to Air Force bases. Additionally, this study only looked at relatively large bases because their closure generally represented a more significant impact on local communities and usually included sizable wildlife habitats. Another selection criteria was bases at which closure was initiated at least six years ago because the military has six years to complete a closure, and the older the closure the more history there was for analysis. For the sake of comparative analysis, it was also important to focus on closures that have followed similar administrative procedures.

The 1988 and 1991 rounds of base closure/conversion met those requirements. Referring back to table 2.1, this left 18 Air Force bases from which to choose. It was then necessary to identify bases, the closure of which included an emphasis on wildlife protection. The surest way to find bases that produced plans emphasizing wildlife protection was to find closed bases that created wildlife refuges. There were only two Air Force bases in the 1988 and 1991 round of closures that ended up creating wildlife refuges: Pease in New Hampshire and Loring in Maine. Loring was only one of three "truly" rural bases that was closed in the first three rounds. In contrast, there were many other bases that had characteristics similar to Pease (i.e., size, metropolitan area, suburban setting, and the amount of continuously undeveloped land on the base). To improve my chances

of finding another base that had similar characteristics but a different wildlife outcome, Pease AFB was selected.

This left 16 bases to choose from, to find one that shared as many characteristics as possible with Pease except for wildlife protection outcomes. These characteristics were (1) size of the base; (2) presence and/or absence of federally listed endangered species living on the base; (3) metropolitan context; and (4) area of unbroken undeveloped land. Furthermore, there was an emphasis on selecting Air Force bases that would be similar in size and community context to those that may be selected for closure in the future in the hope that this research might be more relevant to future closure processes. Air Force bases that are most likely to be closed in any future rounds are about 5,000 acres or less in area, include runways, and are in suburban or urban areas (Beach 1998). Since Pease is 4,257 acres, I ruled out bases that were significantly smaller (less than 3,000 acres) or significantly bigger (more than 6,000 acres). This left 6 bases to choose from (George, Mather, Bergstrom, Eaker, Williams, and Myrtle Beach). Next, since Pease was in a metropolitan area and did not have a federally listed endangered wildlife living on it, I ruled out bases that were in rural areas or had federally listed endangered species living on them. This excluded George (federally listed threatened species), Mather (federally listed endangered species), and Eaker (rural). Finally, since Pease was on the East Coast and very close to the ocean, I looked for a base with a similar geographic setting. This ruled out Bergstrom (in Texas) and

Williams (in Arizona). This left Myrtle Beach Air Force Base in South Carolina. Not only was Myrtle Beach in an Atlantic coastal area like Pease, Myrtle Beach also had an area of undeveloped land around its old weapons storage depot almost as large as the one at Pease.

Table 3.1 summarizes some basic differences and similarities between these two bases. I also limited my research to the base reuse planning process because current base wildlife conditions might not accurately reflect future conditions. For example, a base may sit undisturbed for several years while its reuse options are discussed. During this time, base wildlife populations could increase. Conversely, construction can temporarily drive off wildlife that can normally co-exist with certain levels of human activity.

Interviews

The primary data collection method used in the case studies was the open-ended interview process (both in person and by phone). People in similar positions at each base were interviewed. Based upon the pilot study experience, the following list of standard interviews was derived. These particular respondent roles were

Table 3.1
Base Comparison Table

	<u>Pease</u>	<u>Myrtle Beach</u>
Size	4,257 acres	3,937 ¹ acres
Number of federally listed endangered species currently living on base	None	None
Biggest area of continuous, undeveloped land	1,335 acres	1,095 acres
Location	New Hampshire, northeast Atlantic coastal area	South Carolina, southeast Atlantic coastal area
Metropolitan area	Yes	Yes
Setting	Suburban ²	Suburban
Nearest large city of 100,000 or more	119 miles from Boston	187 miles from Charleston
Planned acres of wildlife protection	1,095 acres	0 acres
Number of new civilian jobs (table 2.4)	1,282 (+ 320%)	281(+ 35%)

chosen based upon their "inside information" each had and the actual roles that each played or reported on during the closure process:

1. The DoD Base Conversion Agency (BCA) site manager & environmental coordinator,
2. The Military Natural Resource Manager at time of closure,
3. The chair and/or executive director of the reuse committee,
4. Local citizens (i.e., a designated neighborhood representatives, an environmental interest group representative, a local business leader, and a journalist),
5. The base liaison officer (base transition coordinator), and
6. The chair and/or executive director of the local redevelopment authority.⁴

For a copy of interview questions, refer to Appendix A. The data generated from the interviews was also used to supplement and verify the document analysis.

Interviews used a standard protocol for all individuals at the different bases. Generic interview questions, outlined in Appendix A, were slightly modified for the different positions. These modifications consisted of position specific information questions that were added to the end of the standard protocol questions (again, see Appendix A). Each of the interviews was summarized, salient points of commonality discussed, differences identified, and associations with the outcome of wildlife status established. Finally, emerging themes were also identified (O'Sullivan and Rassel 1995; Denzin and Lincoln 1994; Miles and Huberman 1994).

The open-ended interviews I used in this study were the semi-structured interviews as described by Whyte (1984; 1991). These interviews had a definite and distinct purpose and a limited range of topics. Interviews usually started with the same particular questions; however, if the interviewee raised other pertinent issues these were also explored. These interactions between the interviewees and the interviewer were a series of discussions about a single topic (wildlife preservation at the closed base). Even though there was no limit to the range of responses, if the interviewee came to a natural stopping point in their dialogue where they had made their point and had nothing more to add, I returned to the original list of questions. I

audio taped these interviews (whenever possible) as well as took notes. The interviews were transcribed and organized into three respondent groupings based upon the role they played in the redevelopment planning process:

1. Closure personnel (Air Force Base Conversion Agency and military),
2. Reuse planners and local government agency representative (Reuse committee chair and/or executive director, Local redevelopment chair and/or executive director, and the Base Transition Coordinator), and
3. Nongovernmental respondents (Local community representatives, Environmental interest groups, Local businesses, and the Media).

I refer to the above three groups as Close, Reuse, and NGR. The Close group tried to dispose of the base and leave. The Reuse group, usually state and local government agencies responsible for redeveloping the base, took control of the base in the form of a reuse authority (refer back to chapter two for more details on this). In this way they would, hopefully and eventually, work themselves out of their jobs. NGR encompasses all the other interests outside of these two groups -- local neighborhood organizations, environmental groups, private citizens, and other organizations that wished to acquire a portion of the base for their own use. That is, they desired a use not related to continued military or redevelopment authority activities.

Interview transcripts were analyzed for data content, factors identified from the literature, and emerging themes. I then coded them (Miles and Huberman 1994). My interviews were processed in the following manner:

1. Conducted the interviews,
2. Transcribed the interviews,
3. Highlighted and coded parts of the interview that commented on my indicators, emerging themes, and any other salient points, and
4. Performed analysis of highlighted sections.

I completed this analysis by condensing points of commonality from each base's interviews and categorizing them (Kvale 1996). Once this was completed and factor/indicator narrative was written for each base, the results from both were compared. The Myrtle Beach and Pease individuals that I interviewed, position at time of closure, respondent grouping, and other pertinent data are presented in Appendix B.

Starting in chapter four, to facilitate comparisons between Pease and Myrtle Beach and to provide some privacy for my interviewees, I refer to each interviewee by base initials, respondent grouping title, and interviewee initials. All quotes are verbatim except for the few interviews that I could not record (again, see Appendix B). While I was able to write down some nice verbatim quotes even in these interviews, most of the responses are paraphrased. These paraphrases are identified by the abbreviation "para." listed in the reference.

Documents

Myrtle Beach documents collected and examined are listed in table 3.2. These documents represent key publications produced in the closure and redevelopment of Myrtle Beach Air Force Base.

Table 3.2
Summary of Myrtle Beach Documents Analyzed

<u>Document #</u>	<u>Title/Description (Date)</u>	<u>Respondent Group</u>
MBD1	<i>Preliminary Final EIS</i> , including public comments (January 1993)	Close
MBD2	<i>Record of Decision Final EIS Disposal and Reuse of Myrtle Beach AFB</i> (MBAFB) (November 1993)	Close
MBD3	<i>MBAFB Community Redevelopment Plan</i> , including public comments (January 1993)	Reuse
MBD4	<i>General Redevelopment Plan for the Air Base Planning Area</i> (April 1993)	Reuse
MBD5	<i>Myrtle Beach Jetport Master Plan and Base Re-utilization Study, Final Report</i> (October 1992)	Reuse
MBD6	Task Force, Redevelopment Commission, and Air Base Redevelopment Authority minutes (N/A)	Reuse
MBD7	<i>Community Relations Plan</i> (June 1995)	Reuse
MBD8	Newspaper Articles (N/A)	NGR
MBD9	TPI Theme Park Documents (N/A)	NGR

These documents are discussed in greater depth in chapter four (Myrtle Beach case study chapter). Documents 1-5 and 6 are referenced using their code identifiers (i.e., MBD1, etc.). These documents are also listed in my references using the above codes. Documents 6, 8, and 9 are referenced by the code identifier and author of the specific article or document. For example, if Smith wrote an article in the Myrtle Beach City newspaper, I referenced it in the following way: "MBD8-Smith." These specific references are listed in my reference section by the author's name only.

The documents that I examined relating to Pease are listed in table 3.3.

Table 3.3
Summary of Pease Documents Analyzed

<u>No.</u>	<u>Title/Description (Date)</u>	<u>Respondent Group</u>
PD1	<i>Final Environmental Impact Statement For the Closure of Pease Air Force Base (February 1990)</i>	Close
PD2	<i>Final Environmental Impact Statement For Pease Disposal and Reuse, including a public comment section (August 1991)</i>	Close
PD3	<i>Record of Decision, Disposal and Reuse of Pease Air Force Base (August 1991)</i>	Close
PD4	<i>Pease Air Force Base Comprehensive Redevelopment Plan: Scope of Work, including a public comment section (1989)</i>	Reuse
PD5	<i>Pease Air Force Base Comprehensive Redevelopment Plan: Phase 1 (February 1990)</i>	Reuse
PD6	<i>Pease Preferred Development Concept (May 1990)</i>	Reuse
PD7	<i>Pease Air Force Base Comprehensive Development Plan, including public comments (September 1990)</i>	Reuse
PD8	<i>Pease Redevelopment Commission minutes, including subcommittees, resolutions, and proposals & redevelopment authority minutes (N/A)</i>	Reuse
PD9	<i>Base Personnel Survey (February 1990)</i>	Reuse
PD10	<i>Newspaper Articles (N/A)</i>	NGR
PD11	<i>Letter Writing Campaign Documents (N/A)</i>	NGR

These documents, representing key publications produced in the closure and redevelopment of Pease, are discussed in greater detail in chapter five. These documents are also referenced and listed in my reference section in the same manner as the Myrtle Beach documents.

Analysis

Since I used Strauss and Corbin's modified grounded theory approach to knowledge creation, I also used their literature and document descriptors. Strauss and Corbin describe two types of literature in their 1990 book, technical and nontechnical:

Technical literature: Reports of research studies, and theoretical or philosophical papers characteristic of professional and disciplinary writing. These can serve as background materials against which one compares findings from actual data gathered in grounded theory studies.

Nontechnical literature: Biographies, diaries, documents, manuscripts, records, reports, catalogs, and other materials that can be used as primary data or supplemental interviews and field observations in grounded theory studies. (48)

In this study I refer to the technical literature as "literature" and the nontechnical literature as "documents." To denote quotes from the document sources I use the document identifiers presented in table 3.2 and 3.3 of this chapter for my references (i.e., MBD# & PD#). Document analysis followed the below four steps:

1. Collected the same documents for each base,
2. Found points of commonality and differences for each base's documents,
3. Categorized, condensed, and coded these points, and
4. Compared them to the interview results, and each other.

One of the main clues that I looked for in this document analysis was the way choices were presented in the most prominent publications (Schneider & Ingram 1997; Baumgartner and Jones 1991). Was there a clear choice between wildlife protection and economic development as presented to the public? Or was the writing of key documents done in such a way as to make one option seem the only logical decision to make? This type of problem presentation, or issue framing, has often been described as an artificial Hobson's choice (Stone 1997; Friedman 1962) and was one the key themes investigated for wildlife status outcome in the document analysis.

Analysis of the interviews identified past trends and produced stories of successful and unsuccessful attempts to preserve wildlife. I then compared these findings with my document findings. These two separate methods not only filled in each other's gaps, but they tended to act as compasses, pointing towards factors associated with environmentally sustainable redevelopment. From the analysis of both the interviews and documents, recurrent themes unique to each base emerged. I then compared the bases' themes (Denzin and Lincoln 1998). It was this thematic comparison that led to policy lessons and implementation recommendations for any base closure that may be conducted under a future version of the Base Closure and Realignment Act.

Since I used the modified grounded theory approach to knowledge creation and investigated several factors, I wrote the following literature

review in such a way as to represent this cyclical approach. It begins with an overview of some of the sustainable development literature most relevant to issues of wildlife protection and economic development. The following discussion first cites the literature suggesting each of the initial factors, then discusses how each was measured. The five initial factors that this literature suggested were (1) environmental ethical concern resulting in activism, (2) local community wealth, (3) demographic and geographic characteristics, (4) public participation, (5) and administrative context and processes. Following this is a discussion of how these factors were evaluated in the Lowry pilot study, followed by a discussion of how the pilot study suggested new measurements and questions for these factors that were used in the case studies.

Supporting Literature

In the modified grounded theory approach, theoretical literature provides suggestions for structuring initial interviews (Green 1998; Strauss and Corbin 1990). In this way, instead of relying solely on the research subjects to suggest factors for initial consideration, the literature provided them. The sustainable development theories investigated were directly related to the two case studies conducted -- wildlife protection versus intensive redevelopment in the arena of public planning and decision making at closed military bases. Since I eventually

investigated six theoretical sub-areas of sustainable development literature (the sixth resulting from comparative analysis of the case studies), I was also able to determine if more than one sustainable development factor needed to be present for there to be successful wildlife protection outcomes.

Overview of Sustainable Development Literature

The concept of sustainable development was brought onto the global stage during the 1980 World Conservation Strategy of the International Union for the Conservation of Natural Resources (Carew-Reid et al. 1994, xiii). Three years later, the United Nations established the World Commission on Environment and Development to formulate an agenda. The Commission, headed by the former Norwegian Prime Minister Gro Harlem Brundtland, published its final report, *Our Common Future*, in 1987. In this work (and for the purpose of this dissertation), sustainable development was defined as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (Brundtland 1987, 8). This and other similar efforts led to the 1992 United Nations Conference on Environment and Development in Rio de Janeiro and AGENDA 21, which was the resulting action plan from the conference. A theme that ran through AGENDA 21 was that the world’s environment (which includes wildlife) must be conserved to ensure the future of the human race and that raising people’s environmental awareness, improving socioeconomic conditions, and

curbing population growth would help ensure this. This theme was summed up as their "Principle 4," which stated, "in order to achieve sustainable development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation" (United Nations 1992, 9).

What is really meant by "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (Brundtland 1987, 8)? Sustainable development itself has been a hotly debated concept ever since the creation of the term, the field of study, and Brundtland's report, which brought it to the world's attention. John Pezzy, a professor at the University of Colorado, Boulder, has an on-going working paper that lists 23 different definitions of sustainable development.³ In a 1996 article, Dobson claims that there are 300 different definitions of sustainable development although he fails to list them in his article. Furthermore, "...sustainable development['s] irredeemably contested nature guarantees plural understandings" (Dobson 1996, 403). Toman (1992) summed up the problem of defining sustainable development: "Like many evocative terms, sustainable development means many things to different people and can be used in reference to a number of important issues" (3). In 1995, Munro echoed this concern: "The terms sustainable development and sustainability have been used to characterize almost any path to the kind of just, comfortable, and secure future to which everyone aspires" (27). Nevertheless, many theorists agree that an important component in defining sustainable development is

intergenerational fairness (Buell and DeLuca 1996; Haughton and Hunter 1994; May 1994; Thomas 1994; Lewis 1996; Gore 1992; Toman 1992). Because of this view, I have chosen Brundtland's definition.

This research concentrates on environmental resource protection. A better term to use could be "environmental sustainability." Environmental sustainability specifically refers to environmental resource conservation. However, since my concern is with preserving wildlife for future generations and Brundtland's definition provides the necessary intergenerational emphasis, I treated this definition as broad enough to include the concept of environmental sustainability.

Sustainable Land Use Planning

Over most of the nation's history, the degradation of natural resources has been considered an inevitable consequence of economic development (Davis 1998; Owen and Chiras 1990; Richards 1986). This assumption began to be seriously challenged at the beginning of the 20th century by figures such as President Theodore Roosevelt, John Muir, Gifford Pinchot, and Aldo Leopold (Des Jardins 1997; Owen and Chiras 1990). More recently, the notion that economic development is always a zero-sum game in competition with environmental quality has been even more significantly challenged through the current emphasis on sustainability and sustainable development. This zero-sum game concept also centers on issues of land use planning.

Planning, specifically related to land use, is a stage of the political process where future land use policies are often created (Kozlowski and Hill 1993; DeGrove and Metzger 1991; Stroud and O'Connell 1986; Popper 1983). Development (whether ecologically friendly or not) is where these plans are often implemented (Lewis 1996, Hoover and Shannon 1995; DeGrove and Metzger 1991). "Land use is crucial to environmental changes, and influences the formulation of an environmental policy. Government policies and localized bodies determine the land use planning system objectives" (Healey and Shaw 1993, 769). If there will be wildlife for future generations to appreciate, enjoy, and use, there must be habitat for these species to live in. For there to be wildlife habitat, "...an attempt to assist in incorporating ecological contents into the planning process in which land use patterns are generated must be welcome" (Kozolowski and Hill 1993, viii).

The history of suburban land development in the United States is one of urban sprawl. Private investors who make their living by building upon natural landscapes are usually referred to as developers. These developers have promoted a growth economy because more growth means new development, and it is mainly through new development projects that developers make more money. This growth tends to occur on the fringes of cities. "Hence growth tends to increase demand for land throughout the urban region but the increases are greater at the periphery..." (Blair 1995, 229). This

leads to increased urban sprawl that gobbles up green spaces and wildlife habitat.

Why have developers done this? Land that does not have improvements associated with it (streets, utilities, and city services) is cheaper for a developer to buy than land that does have it. "The developer's objective may be approximated by the desire to maximize profits..." (Blair 1995, 215). A developer cannot realize profits if the land he or she wishes to speculate on is left in its natural condition. Defenders of this type of land development -- which they call metropolitan spread -- contend that local development is a matter of personal preference and market economics, not collective community action (Blair 1995). Opponents of traditional land development contend that it increases air pollution, resource consumption (in the form of fuel consumption from increased vehicle miles traveled), and reduces agricultural land and wildlife habitats (Gunn 1998; Rosenfeld 1997; Selman 1996; Blair 1995). These theorists also propose that some type of "balance" between economic development and environmentally safe practices should be achieved.

In creating wildlife safe development plans, the President's Council on Sustainable Development (1996) suggests that America needs to change its natural resource management style from that of resource user to resource steward:

Stewardship is an essential concept that helps to define appropriate human interaction with the natural world. An ethic of stewardship builds on collaborative approaches; ecosystem integrity; and incentives in such areas as agricultural resource management, sustainable forestry, fisheries, restoration, and biodiversity conservation. (109)

This new stewardship would have to express itself in the planning process in order to change development patterns. In respect to base closures, the specific process investigated was the reuse planning process as explained in chapter two.

The heavy development of local natural landscapes to maximize economic gain versus controlled development that includes the protection of wildlife habitat has been a tension described by many environmental authors (Bartelmus 1994; Beatley et al. 1993; Oldfield 1991; Noss 1987; Faludi 1985). Des Jardins (1997) stated it well: "Quite often, environmental interests are pitted against entrenched and influential corporate and government interests" (189). These authors state that a balance needs to be reached because both people and animals must live off the same land:

Although few remaining natural areas are large enough to contain natural disturbance regimes and natural community mosaics within their boundaries, or to meet the needs of wide-ranging animals, an integrated network of protected areas and buffer zones of low-intensity land use [like clear zones around munitions storage areas on military bases] may approximate the natural pattern. (Noss 1987, 2)

The essence of local-level sustainable planning is a collaborative, participation-based decision-making process that takes into account the protection of natural

resources to assure a healthy community (Schwab 1997; Hancock and Gibson 1996; Porter and Salvesen 1995; Hicks 1993; Grosse 1992; Tober 1989).

How is local-level sustainable planning achieved? "Planning to sustain landscapes implies not only a new philosophy but also different land-use practices within communities" (Grant, Manuel, and Joudrey 1996, 331). Three practices are heavily promoted: reinvestment in the central parts of cities, the preservation of rural agricultural land and wildlife habitat, and the creation and maintenance of "green belts" around cities to limit urban sprawl (Gunn 1998; Rosenfeld 1997; Grant, Manuel, and Joudrey 1996; Selman 1996). These goals are important, combined they aim to pave over as little natural area as possible. "The health and prosperity of communities over the long term depends upon natural processes and landscape functions. Without a healthy environment, human communities face uncertain futures" (Grant, Manuel, and Joudrey 1996, 331). For example, if wetlands are filled in, then this land cannot absorb as much water as it once did, and local flood events can become more severe. This is what happened in the 1993 Midwest Flood, which was considered one of the worst to ever occur in the United States. Much of this flooding was attributed to the filling in of wetlands for agriculture purposes (McManamy 1993).

Other Areas Related to Sustainable Development Planning

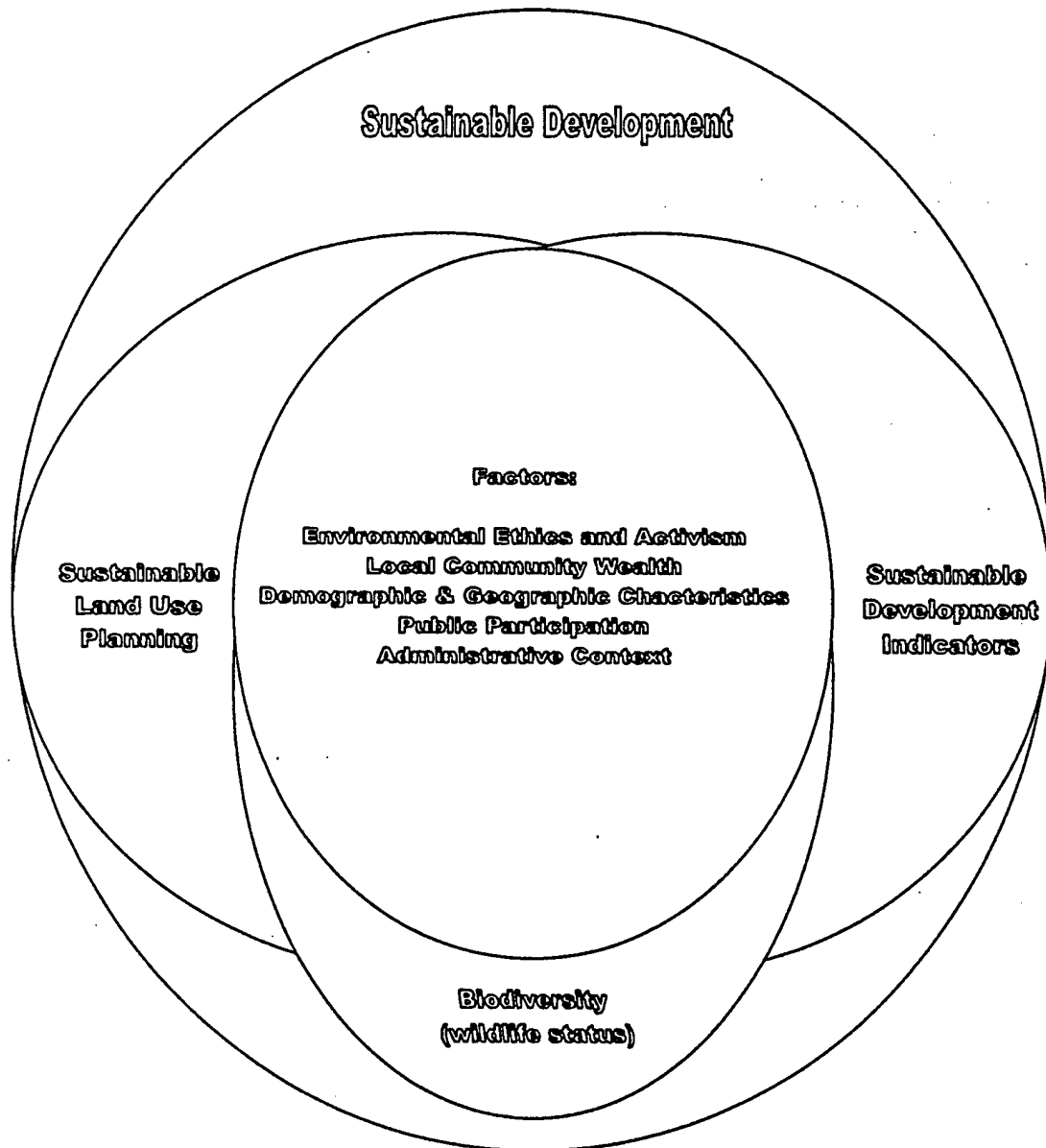
In 1997, Pezzoli attempted to map out sustainable development fields of discourse. According to Pezzoli, there are ten fields, and each of these fields also has several sub-fields.⁴ Accompanying this article, discussing his transdisciplinary overview of sustainable development literature, a transdisciplinary bibliography in support of these categories was also presented. Pezzoli concluded that the main focus of sustainable development was its attempt to address four concerns: "(1) holism and co-evolution, (2) social justice and equity, (3) empowerment and community building, and (4) sustainable production and reproduction" (549).

In 1996, Marien published *Environmental issues and sustainable futures: A critical guide to recent books, reports, and periodicals*. In this book Marien identified three broad categories and many subcategories:⁵ Environmental Issues, Toward Sustainability, and Politics & Planning. These lists are not authoritative; you could go to other sustainable development theorists and get almost as many different lists as there are theorists. Nevertheless, in comparing the two lists, similar areas of discourse became apparent -- economics, philosophy, ethics, politics, planning, and specific environmental issues. I could have spent a great deal of time comparing these lists with the rest of the sustainable development literature, but that would have been extraneous to what I needed to do, which was to identify where my particular question fell in the sustainable development literature. I used these lists as a starting point. Since I wanted to identify factors of sustainable

development, Pezzoli's sub-area of sustainable development indicators was a natural starting point. My outcome of concern was the protection of local wildlife resources for the sustainable redevelopment of a closed military base, Marien's subcategory of biodiversity became the second literature group related to my research. Finally, since my study focused on local government efforts to redevelop closed military bases, Marien's category of politics & planning became a final group. Although I conducted this literature review based upon the areas listed above, there was a great deal of overlap. An important theoretical concept for one indicator was usually found in another. For example, the area that I discuss first, sustainable development indicators, addresses ways to measure theoretical concepts that I address in the following areas. These literature groups provide the framework, context, and supporting literature and their theoretical relationships can be thought of as nested and overlapping theoretical concepts (see figure 3.1).

Because sustainable development indicator literature influences all the initial factors for consideration ("factor" and "indicator" are used interchangeably), sustainable development indicators are discussed first and separately. Following that is a discussion of the supporting literature for each of the initial factors and their respective measurements.

Figure 3.1
Sustainable Development Literature Areas



Sustainable Development Indicators

If protecting wildlife while allowing economic development is a sustainable development goal, how do we know if we are making progress? Many sustainable development theorists suggest that creating ways to measure sustainable development progress is an important step (Bossel 1998; Fricker 1998; Yu et al. 1998; President's Council on Sustainable Development 1996; Trzyna and Osborn 1995; van Dieren 1995; Brown, Flavin, and Postel 1991; Kuik and Verbuggen 1991; Pirages 1977). Additionally, without special measurements for ensuring that future generations and non-human species are represented in public decision making, they could be systematically underrepresented (Goldman et al. 1995). Furthermore, any indicators "... should reflect the interface between social, economic, and environmental issues ... Statistics alone are not enough for decision-making and must be supplemented by textual and geographically referenced information" (O'Conner 1995, 91). "Meanwhile, Agenda 21 identified the need for indicators of sustainable development for use in decision-making, but those that have been developed are not easy to apply in project level ..." (George 1999, 175). Finally, almost all sustainable development indicators that have been created for the United States have concentrated on environmental or economic issues at the national, regional, or state levels -- very little work has been done on local indicators (Corson 1995).

So far, most of the suggested sustainable development indicators seem to fall into three broad categories (with overlap): global overviews, new economic indicators, and environmental indicators. Global overviews are broad-based, world-wide factors such as total earth population, per-capita consumption rates, global climate change, planetary natural resource depletion rates, air and water pollution issues, and the growth of environmental hazards (Arizpe, Stone, and Major 1994; Goudie 1994; Kendall 1992; Tolba and El-kholy 1992; Meadows et al. 1972). As can be seen from their global nature, these indicators do not hold a great deal of promise for identifying local factors for my research question. The second group of proposed sustainable development indicators center on economic measurements in general and national economic measurements in particular.

Economic approaches to social modeling, natural resource management, and population prediction led many researchers to wonder if the United States economic indicators truly measured actual economic health -- while taking into account environmental and social issues (Goodland and Daly 1995; O'Conner 1995; Sheng 1995; Bartelemus 1994; Cobb and Cobb 1994; Pearce and Warford 1993; Foy 1990; Daly and Cobb 1989). Even though this area of "new economic indicators" emphasizes national accounts, it also addresses some local economic issues. Some of the literature suggests that the creation of economic equity indicators is an important step for sustainable land use planning. According to the 1987 Brundtland report, when it comes to trying to achieve sustainable development "...many problems of resource depletion

and environmental stress arise from disparities in economic and political power" (46). For example, an industry may "get away" with unacceptable levels of air and water pollution because the people who bear the brunt of it are poor and unable to complain effectively. In this example, local groups and individuals have little ability to impact the management of their local environment because of their low socio-economic status. Economic growth needs to be more "...equitable in its impact" (Brundtland 1987, 52). "Income distribution is one aspect of the quality of growth ... and rapid growth combined with deteriorating income may be worse than slower growth combined with redistribution in favor of the poor" (Brundtland 1987, 52). For instance, the introduction of large-scale commercial agriculture may produce revenue rapidly, but it may also displace a large number of small family farms and make income distribution more inequitable. In the same vein, Scruggs (1993) describes that one of British Columbia's basic principles for sustainability is to "meet basic needs and aim for fair distribution of the benefits and the costs of resource use and environmental protection..." (23). In 1994, the Tides Foundation held a Conference titled, "Defining Sustainable Communities." The report from this conference concluded that a new definition of prosperity is needed. Core to this is that capital is a resource to be shared with the community, not controlled by an elite.

Environmental indicators center on measuring human impact on the environment. These "environmental" indicators concentrate on measuring environmental conditions and attempt to determine if these conditions are improving

or declining (Environmental Protection Agency 1992; Kozlowski and Hill 1993; Organisation for Economic Co-operation and Development 1991; Thomas 1976). For instance, the President's Council on Sustainable Development (1996) proposed that to measure whether the United States is achieving its goal of a healthy and clean environment, indicators for measuring progress (or lack thereof) in cleaning the air, improving drinking water, identifying toxic exposures to hazardous waste, and accounting for deaths from these exposures need to be developed.

This research relates to local politics, planning, and land use. This is significant because "...scientists must learn more of the four-interactions of population, the environment, economy, and culture" (Cohen 1995, 386). And these interactions take place on the local level even though their collective impact is felt at the global level -- thus the maxim "think globally act locally." To successfully measure local interactions that impact sustainability, indicators need to be "...a multidisciplinary effort. The integration of contributions from the natural and social sciences on this subject is essential" (Kuik and Verbruggen 1991).

Wildlife Status

In determining the conditions that were present in the local community and within the reuse committee that were associated with wildlife status, the first step was to determine a means for gauging relative levels of wildlife protection. This

was derived from review of the biodiversity/sustainable development literature and from the pilot study conducted at Lowry AFB, Colorado, in the summer of 1998.

Literature

The sustainable development literature suggests that environmental resources not be overtaxed so that they may be available for future use. Brown (1987) points out that when a population exceeds the sustainable yield of their forests, croplands, and aquifers, "...they begin to consume the resource base itself, gradually destroying it" (21). The eventual result of this destruction is a collapse of the biological and environmental support system. There have been volumes of material written about vanishing wildlife, the destruction of wildlife habitat, and the importance of this wildlife habitat to the future of the human race (Baskin 1997; Kellert 1996; Power 1996; Grumbine 1994; Board on Science and Technology for International Development 1992; Spellerberg and Hardes 1992; Dubasak 1990; Soule and Kohm 1989; Norton 1986). The main concern expressed by these works is that human-induced wildlife extinction is increasing at an alarming rate and once a species is extinct, that unique genetic resource is gone forever. How many species are going extinct? How many species were there to begin with? As with the question "what is sustainable development?," there are almost as many different answers as there are experts. Most of the estimates on the total number of animal species in existence and their rate of human-induced extinction seems to fall in the

range of 4 to 23 million species with four to 60 going extinct each day (Noss and Cooperrider 1994; Spellerberg and Hards 1992; Wilson 1992; Tudge 1991; Norton 1986).

In regard to the United States, there are no solid numbers on species losses (Mac 1998; Langner and Flather 1994; Committee on the Formation of the National Biological Survey 1993). However, there is a general agreement that biodiversity is declining:

Comparison of data from the 1960s indicates that native diversity has declined in the U.S., over the past three decades, and is likely to continue to decline.... natural habitats will continue to decline and fragment as a result of growing human populations and associated pressure on a shrinking base of natural habitats. (Langner and Flather 1994, 18)

In the above quote, diversity refers to the number of different species and population numbers for each species. Diversity loss can come from the extinction of one species or the population reduction of one species to the point that its genetic code variations become extremely limited. Biological diversity loss in the United States has been related to "rapid economic development and habitat destruction" (Dunlap 1988, 142).

Can wildlife protection (the avoidance of biodiversity loss) truly be considered a subcategory of sustainable development, or is it its own environmental category? The recognized need to conserve and/or preserve wildlife has been

around longer than the concept of sustainable development, but sustainable development theorists concentrate on the intricate relationships between biological diversity, socio-political arenas, and human based actions (Rodiek and DelGiudice 1994; Naveh 1994; Clark and Munn 1986). Since I am looking at public decision making in regard to base reuse, it seems logical to take the view of wildlife protection as a component of sustainable development. To borrow from Rodiek and DelGiudice (1994):

Biological diversity, landscape sustainability and wildlife habitat conservation should not be viewed as separate missions. They should be viewed as complementary responses designed to help resolve the conflicts between human actions as they relate to the use of natural resources and environmental impacts. (2)

There seems to be some consensus that human-induced biodiversity losses need to be stopped or slowed (Dobson 1996; Ehrenfeld 1995; McDonnell and Pickett 1993; Perrings 1994; Norton 1986; Warren and Goldsmith 1983). Furthermore, there seems to be a consensus that more land set aside for wildlife habitat, growing wildlife populations, and more attention to wildlife issues are positive wildlife protection trends that need to be encouraged. George (1999) developed three indicators of biodiversity status in project management:

- The quantification of natural habitat that will be lost which is important for species conservation,
- The setting aside of equivalent replacement habitat for area lost, and
- Justification for habitat area lost, as a proportion of the total area of this type of habitat, in such a way that the overall loss will not damage wildlife regeneration rates. (George 1999, 181)

Measurements

This factor was rather straightforward, and the measurements for this factor in my case studies were also rather straightforward -- amount of wildlife habitat, wildlife conditions, and specificity (attention) given to wildlife in the planning process (Rapport et al. 1998; Kozlowski and Hill 1993; Environmental Protection Agency 1992; OECD 1991; Thomas 1976). The two main measurements were the percent of wildlife habitat set aside in base reuse planning and specificity given to wildlife in the reuse planning process. Specificity refers to the amount of attention that planners, the public, and the military paid to wildlife preservation issues in base reuse planning. By measuring the specificity given to wildlife, I tried to determine if wildlife was being protected without the creation of a refuge. Another measurement was actual acres set aside for wildlife habitat and current wildlife conditions. To gauge the amount of wildlife habitat protected, I reviewed Environmental Impact Statements, Records of Decisions, and Reuse Plans for both bases. Specificity was measured by reviewing newspaper articles and meeting minutes to see how much dialogue there was concerning the protection of wildlife habitat.

In respect to influencing factors that may be associated with wildlife preservation status at closed bases, I divided them into two categories -- background community factors and reuse committee dynamics. Grouping the factors investigated into separate categories based upon similar characteristics made it possible to determine which category had more of an impact in producing wildlife protection plans. This was estimated by determining which category had more factors associated with successful wildlife protection outcomes.

Background community factors are items that described the local community. Since reuse planning for a closed base must physically take place in that community, certain aspects of the community became important factors that comment on how a community thinks, acts, and plans with regard to wildlife. The initial factors that this study looked at were environmental ethics and activism, local community wealth, and demographic/geographic characteristics. Reuse committee dynamics were factors that described the actual redevelopment planning process itself. These factors were divided into two categories: public participation and administrative context.

Environmental Ethical Concern and Activism

Literature

Environmental ethics refers to the consideration of what should be the appropriate moral relationship between human beings and the environment.

Environmental ethics explores different views of this relationship, such as whether nature is intrinsically valuable or is of instrumental value only (Des Jardins 1997). Instrumental value can be viewed as a function of usefulness. An object with instrumental value possesses that value because it can be used to attain something else of value. Thinking of natural objects in terms of "resources" often implies an instrumental value related to a human-centered (anthropocentric) view of the world. For example, Gifford Pinchot's conservation movement emphasized the instrumental value of forest and wilderness areas. In contrast, John Muir saw an intrinsic value in wilderness for its own sake. And it is from these two historical figures that we inherited the conservation management versus preservation management debate.

However, many environmental ethicists consider Aldo Leopold to be the prominent founder of American environmental ethics. "His life's work sought to integrate ecology and ethics" (Des Jardins 1997, 173). Leopold (1966) considered wildlife management an ethical issue based upon normative relationships; to describe these relationships he coined the term "the land ethic." From this perspective, the natural environment has as much right to exist as we do (Singer 1990; Nash 1989; May 1978; Trefethen 1975). And this proclamation that nature has a right to exist due to its intrinsic value has two theoretical camps associated with it biocentric and ecocentric environmental ethics. Biocentric ethics refers to the view that all life (animal and plant) possesses some intrinsic value (Taylor 1986;

Regan 1983). Biocentric ethics excludes the nonliving aspects of the natural world because it only equates value with life. In contrast, an ecocentric ethic gives moral consideration to nonliving natural objects and ecological systems (Des Jardins 1997).

The animal rights movement has theoretical foundations in both biocentric and ecocentric ethics (Bissell 1993). The animal rights movement has exemplified the specific ethical concern of wildlife preservation in respect to public policy (Singer 1990). Indeed, an environmental ethic that "...does not address the question of wilderness preservation would seem, at best, incomplete" (Des Jardins 1997, 149). But environmental ethics can only take us so far; environmental activism that seeks to influence and direct public wildlife policy is also essential (Des Jardins 1997; Devall and Sessions 1985; Fox 1984; Naess 1984). This points towards the importance of environmental ethics and activism as an indicator for consideration.

Environmental ethics is a branch of philosophical ethics that also deals with real-world environmental issues (Euston 1995; Merchant 1992; Shearman 1990; Callicott 1989; Hargrove 1989; Rolston 1988). One theorist (Nash 1989) holds that environmental ethics will fall into direct conflict with policy formulation as practiced by American public administration. In the laboratory of base closures, a community's environmental ethic may or may not be incorporated into base reuse planning depending upon the community's drive (activism) to impose its environmental beliefs on base reusing planning.

Environmental activism is not only related to environmental ethics but also to politics, specifically interest group politics, often called pluralism (Davis 1998; Hrebener and Scott 1990). Interest group theory's central tenet is that "...society will inevitably form into groups to promote their common political interests" (Davis 1998, 14). A theory that runs opposite to pluralism is elite theory. Elite theory's main postulate is that the "...wealthy elite control policy because its members are more likely to hold those positions due to their head start in life, and because the elite pull the strings from behind" (Davis 1998, 15). In this dissertation I have defined environmental activism as "the political action taken by interested people of a local community to impose a certain environmental ethic."

Measurements

What is the level of environmental activism for a community and how to measure it? This study included interviews with individuals who were able to comment on their local community's level of environmental activism at the time of closure. These individuals were asked to characterize the local communities' environmental activism and how this affected reuse planning dynamics. Additionally, a document search was conducted to determine the number and type of environmental interest groups involved in the local community's reuse discussions. By counting and identifying the number and types of environmental groups involved in the reuse process, I was able produce a measurement that

facilitated a comparison between the two bases. Particular attention was paid to the involvement of national level environmental interest groups colloquially known as the big ten.⁶ In this study I refer to the grouping of individuals, environmental interest groups, and local organizations as a preservation coalition. The literature sources, measurements, questions, and documents used to investigate these factors at both bases are listed in table 3.4.

Table 3.4
Tools for Measuring Environmental Ethics and Activism

<u>Literature</u>	<u>Indicator</u>	<u>Measurements</u>	<u>Questions/Documents</u>
Davis 1998; Euston 1995; Pirages 1977; Gore 1992; Merchant 1992; Des Jardins 1997; Leopold 1949; Singer 1990.	Environmental Activism	Perceived environmental activism level Number and types of wildlife conservation groups that were involved in reuse planning; level of involvement; relationship between actions taken and results achieved	1. Could you describe the local level of environmental activism? 2. Do you recall which wildlife groups were involved? 3. Why do you think they were involved? MBDocs -- 6, 8. PDocs -- 8,10.

Local Community Wealth

Literature

“A sustainable economy is held to be necessary for intergenerational equity ... concerning ... resource depletion; conserving the stock of resources, resource diversity, and assimilative capacity” (Attfield 1998, 207). In planning for sustainable development, economic issues have received considerable attention

(Goodland and Daly 1995; Foy 1990; Stivers 1976; Boulding 1966). A specific area of economic concern under sustainable development is the equitable distribution of economic wealth. Policies designed to promote sustainable development, improve environmental quality, and insure democracy cannot be divorced from questions about the present day distribution of wealth and welfare (Rees 1991, 292). "Those who trumpet the supremacy of democracy forget that it is merely one of many systems that govern the decisions affecting our lives. Capitalism, our economic system, exerts an equally profound influence, perhaps greater" (Chomsky 1999, 8).

There has also been a great deal of writing concerning relationships between economic wealth and the natural environment (Myers 1996; Goodland and Daly 1995; Daly 1994; Durning 1992; Gore 1992; Costanza 1991). In regard to wildlife habitat preservation in local communities, the wealth of the local residents seems to be an important factor for consideration. Specifically, many theorists have noted that as the affluence of a community increases, that community's desire to preserve its landscapes may also increase (Bernard and Young 1997; Downs 1994; Pye-Smith, Feyerabend, and Sandbrook 1994; Pick 1993; Cairncross 1992; Frieden 1979). Often, the environmental goals that affluent groups seek to achieve are wildlife preservation, landscape preservation, and reductions in air and noise pollution (Frieden 1979, 8). With increased wealth comes increased political power; therefore, as individuals with preservation interests gain affluence, their ability to preserve local wildlife habitats can also increase. However, landscape

preservation in local communities is not always based upon a desire to conserve local wildlife:

A consistent environmental theme against homebuilding (urban growth) is simply the need to save open space. The ideological source for this position is not conservation, which stresses the wise use of resources, but rather the preservation movement.... Preservationists form effective alliances with other resident groups whose concerns are to protect their own social and tax advantages.... They try to guard well-to-do suburbs against change, and the environment they protect is a local environment their affluent members can afford to enjoy. (Frieden 1979, 10)

Regardless of the exact motivation for landscape preservation, it seemed that the wealth of the local community, its distribution, and the role of the economic elite were important considerations.

Measurements

The first measurement was median income of the local community, second income distribution, third per capita, fourth cost of living, and fifth perceived economic conditions. Finally, since income is often dependent on occupation, the unemployment rate and the number of civilian lost and created because of base closure were also measured. The literature sources, measurements, questions, and documents used to investigate these factors at both bases are listed in table 3.5.

Table 3.5
Tools for Measuring Local Community Wealth

<u>Literature</u>	<u>Indicator</u>	<u>Measurements</u>	<u>Questions/Documents</u>
Bernard & Young 1997; Downs 1994	Local Community Wealth	Median income	Census data
Pye-Smith, Feyerabend, and Sandbrook 1994;		Income distribution	Census data
Pick 1993; Frieden 1979		Per capita income	Census data
Scruggs 1993; Daly and Cobb 1989;		Unemployment rate	Census data
Rees 1991; <i>The Ecologist</i> 1992.		Cost of living	Census data
		Civilian jobs lost	GAO: NSIAD-96-149
		New civilian jobs	Base Conversion Agency information
		Perceived economic conditions	Interview questions

Demographic & Geographic Characteristics

Literature

Demographic and geographic characteristics were indicators that were considered because the unique urban/suburban/rural or ecological setting of the base might have had a significant impact on what happened in regard to wildlife protection (Hostetter 1998; Rapport et al. 1998; President's Council 1996; Noss 1987). In other words, why was the land valued or not valued? Was this land seen as ecologically unique? By answering these questions, reasons behind habitat protection can also be commented on.

In support of this factor concerning the ecological value of lands, some theorists hold the opinion that before we can save wildlife, we must first know what wildlife there is, where it lives, and what ecosystems are most unique and valuable (Mann and Plummer 1995; Clark 1994; Norse 1993). Once this is done, the most

important wildlife habitats can be given top priority. In this sense, these same theorists propose that, to be successful, current actions need to concentrate on the habitat for the most endangered species first, and current regulations and policies pertaining to endangered species must be strengthened (Tuxill 1999; Rogers and Feiss 1998; Dobson 1996; Langner and Flather 1994; Perrings 1994).

Wilson (1992) is a good example of this view; four steps of his five-step proposal for reducing biodiversity losses promote the following: "1. Survey the World's Flora and Fauna, 2. Create Biological Wealth, 4. Save What Remains, and 5. Restore Wildlands." (ii). Other authors also express their belief that wildlife resources need to be completely surveyed and remaining wildlife habitat immediately preserved (DiSilvestro 1993; Myers 1992).

How does this specifically relate to wildlife habitat on military lands? DoD-managed lands represent only about three percent of all federal lands managed in the United States. Nevertheless, these lands have disproportionate value in terms of wildlife habitat, especially bases in California, Florida, and Hawaii (Cooper and Perlman 1997; Ripley and Leslie 1997; DoD and The Nature Conservancy 1996). For example, "March Air Force Base in Western Riverside County east of Los Angeles covers an area only a tiny fraction of the size of Yosemite National Park, yet its scrubby grassland harbors more listed plant taxa than either Yosemite or Sequoia National Park" (Cooper and Perlman 1997, 5).

Measurements

The conditions in this category represent some problematic questions that were also considered (urban setting and ecoregion). If a base is in a city or geographically separate from one would that be an important factor in redevelopment? If that base is in an ecosystem that is rare or endangered, would that be an important factor for consideration? With these questions in mind, I looked at the location of the base -- whether it was in an urban, suburban, or rural setting. To denote ecological region, I used Bailey's hierarchy of ecoregion classification, which is based on climate and vegetation conditions (Bailey 1996). The literature sources, measurements, questions, and documents used to investigate these factors at both bases are listed in table 3.6.

Table 3.6
Tools for Measuring Demographic and Geographic Characteristics

<u>Literature</u>	<u>Indicator</u>	<u>Measurements</u>	<u>Questions/Documents</u>
Ripley & Leslie 1997; Rapport et al. 1998; Noss 1987; Wilson 1992; Bailey 1996; Cooper and Perlman 1997.	Base setting	Setting	Is the land worth Preserving? MBDocs --1-4, 8. PDocs -- 17, 10 & the 1990 Newington City Master Plan.
		Ecoregion	<i>Bailey's Geography 1996</i>

Public Participation

Literature

"In view of accelerating biological and cultural landscape degradation, a better understanding of interactions between landscapes and the cultural forces driving them is essential for their sustainable management" (Naveh 1994, 43). Politics is the area of social activity in which wildlife issues are either addressed or ignored in the redevelopment of closed military bases. There are many works documenting the political aspects of sustainable development in other countries besides the United States (Nathani 1996; Norberg-Bohm 1996; Stricker 1996; Fishbein 1994; Glopin 1994; World Resource Institute 1994; Myers 1992; Munro 1991). Most of these works concentrate on the developing nations of Africa, Asia, and South/Central America (where species extinction is most pronounced). These works are usually concerned with the sustainable aspects of growing populations, vanishing resources, disappearing ecosystems, and endangered wildlife. There is also a large amount of politically oriented sustainable development literature on the developed countries of Europe -- mainly Germany, the United Kingdom, and the Scandinavian countries (Baker et al. 1997; Fishbein 1994). In contrast, not as much has been done on the local political aspect of sustainable development in the United States. Part of my motivation for doing this work is to help fill this gap.

There is a growing literature concerning the public perception of environmental issues, the growth of environmental activism, the management of

common pool resources, and environmental policymaking (Pezzoli 1997a, 1997b; Marien 1996). Political science works that explicitly engage issues of sustainable development planning are relatively rare (Meadowcraft 1997). Nevertheless, there are some notable exceptions that I will discuss. Sustainable development politics seems centered on issues of democracy and public participation. "The notion of sustainable development has in recent years achieved a popularity approaching that of democracy" (Lafferty 1996, 185). This may be due to sustainable development's ability to include both physical and social concepts under its theoretical umbrella. In regard to democracy, environmental equity based upon increased public participation is a recurring theme in sustainable development (Press 1998, 1994; Buell and DeLuca 1996; Dryzek 1995; Lynn and Busenberg 1995; Thompson 1995; Burnheim 1995; Barns 1995; Eckersley 1995; Hayward 1995; Morrison 1995; Fishkin 1991). In this respect, increased public participation is considered a necessary ingredient for the achievement of a sustainable society because this would "...foster people working together to address community issues..." (Tonn and Petrich 1998, 783). What happens when there is a lack of public participation?

The fall of the iron curtain unleashed a wave of environmental horror stories. There were reports of forests without leaves, nuclear reactors dumped into Arctic waters, high cancer rates, and increasing birth defects (Edwards 1994; Carter and Turnock 1993; McCuen 1993; Peterson 1993; Feshbach and Friendly 1992; French

1990). The horrible environmental record of these former communist nations reveals an important point:

...a sustainable society almost certainly must be founded on a strong civil society.... In the final analysis, it is the power of individuals, channeled through civil society, that will drive governments, international institutions, and businesses toward sustainability. (Roodman 1999, 182)

The rise of nongovernmental environmental groups (NGOs) may be a direct result of this "civil society" addressing government's failure to handle the rising problems of poverty and environmental degradation. Many of these NGOs also represent a growing group of interests who are expressing their concern about the way elite factions are teaming up with government agencies to exploit publicly owned resources for private gain:

In the 1995-96 U.S. election cycle, oil and gas companies gave \$11.8 million to congressional candidates to protect tax breaks worth at least \$3 billion. Timber lobbies donated \$3.6 million, mainly to members of committees that have set the U.S. Forest Service's timber sale quotas high enough to propel wide-spread clearcutting on public lands. (Roodman 1999, 184)

The U.S. government spends tens of millions of dollars each year paying loggers to clear cut part of the nation's only rainforest, the Tongass National Forest in Alaska (U.S. Congress Committee on Natural Resources 1994). This government expenditure represents things such as the building of logging roads. The Forest

Service then charges a mere \$2 for each old growth ancient Sitka Spruce cut down (Durbin 1997).

Almost all forms of government maintain close relationships with wealthy and powerful industrial interests (i.e., iron triangles, policy networks, and governmental clientele departments such as the agricultural department, and the forest service as in the previous example). These close relationships often help governments by ensuring support from wealthy and politically powerful interests, but they can also reduce government accountability to the general population, creating a credibility crisis. Additionally, this form of politics may reflect the uncoupling of growth from broadly based improvements in the quality of life, providing economic gains for the wealthy few while furthering the disenfranchisement of the non-elite:

Along with exacerbated maldistribution of economic and environmental benefits, voter turn-out has fallen to all-time lows, and is growing more divided along class and race lines. Most of the rich still vote; most of the poor do not, and the fraction of the latter that does vote is shrinking. Predictably, those who still participate in electoral politics are often its greatest beneficiaries. (Goldman et al. 1995, 6)

Thus, elected government officials generally respond to elite individuals who vote and provide sizable campaign contributions (in the United States) by continuing unsustainable practices that benefit the elite, such as the previously mentioned forestry practices. This debate of an elite-controlled United States versus government getting greater direction from the general public has been described as

elite democracy versus participatory democracy (Steelman 1996; Polsby 1980; Fagence 1977; Dahl 1961).

The debate on elite control of the United States government versus a participatory based model can be traced back to the debates of Alexander Hamilton, Thomas Jefferson, and James Madison. Madison was very concerned about the power of an unchecked majority (Hamilton, Madison, and Jay [1788] 1961, 77). In contrast, Thomas Jefferson supported a participatory notion of democracy. In his view, the new republic should have been built upon the shoulders of politically active farmers (Levy 1982). Furthermore, Jefferson believed that the road to a lasting democracy could only be built by educating the public, and through this education the self-same public would then demand a lasting democracy based upon public participation (Steelman 1996).

In support of this, some theorists state that for sustainability to occur the general public must have ready access to government decision makers (Gundersen 1995; Harker and Natter 1995; Western, Wright, and Strum 1994; Bullard 1993; Holmberg 1992; Zisk 1992; Andrews and Waits 1978). Gore (1992) stated it this way:

Here in the United States, a hugely disproportionate number of the worst hazardous waste sites are in poor and minority communities that have relatively little political power because of race or poverty or both. Indeed, almost wherever people at the grass-roots level are deprived of a voice in the decisions that affect their lives, they and the environment suffer. (179)

Others (Orr 1994, 1992; Reardon 1994; Milbrath 1989) express a need for more citizen involvement to counter the growing gap between the development elite and the general public and the environmental degradation that has accompanied it. They promote an "authentic citizenship" that recognizes our interdependence on each other and nature -- in contrast to a mindset of "cheap citizenship" that requires little more from the public than customer-like behavior (Orr 1994, 124).

Public administration theorists who criticize the "Reinventing of Government movement" have also echoed this criticism. This movement is a public management, post-bureaucratic, best practice research approach to government reform, and one of its guiding principles is that government clients should be redefined as customers (Osborne and Gaebler, 1992). The critics of reinventing government object to the term "customer" because it marginalizes the idea of citizenship. "Those with reverence for the Constitution are not aesthetically pleased with the crass sound of 'We the customers of the United States of America'... government does more than serve: it regulates, mediates, commands, and invests" (Carroll 1995, 309).

In regard to public participation, Brudtland (1987) said, "Most important, effective participation in decision-making processes by local communities can help..." attain sustainable development (1987). Scraggs (1993) described a British Columbia principle for sustainability: "Provide a system of decision-making and governance that is designed to address sustainability -- one that is more proactive,

participatory, and long-term" (23). The Tides Foundation (1994) called increased "Pluralism, inclusiveness, and community-based decision-making essential for sustainable development" (27). Therefore, public participation was also an important indicator for consideration.

Can today's concept of democracy accommodate sustainable development? O'Riordan and Voisey (1997) point out that citizens who want sustainable development have to get more involved with government and that public administration's current view of citizens as self-gratifying consumers will have to change to one of socially responsible citizens. The notions of environmental stewardship for the planet, future generations, and shared development for mutual gain will also have to be emphasized. According to O'Riordan and Voisey (1997), this will only happen if we treat "sustainable development as a socially motivating force where we are not sure where we will end up, but we keep trying, because we perceive our long-term survival is at stake" (4).

Dryzek (1995) argues that any political or economic system embodies imperatives or emergent properties that take effect whatever the intentions of agents within the system. In this respect, current forms of democracy do not give natural systems rights, and the traditional conception of democracy must be reworked for ecological purposes, dissolving the boundary between human society and nature. In this, nature becomes a co-respondent in the new system, capable of sending signals that may be received and integrated into the deliberative processes whereby policy

is formed. Therefore, nature becomes a party to the democratic process. Thompson (1995) also offers a similar proposal. In her view, to ensure the inclusion of environmental issues in a democratic decision-making process, environmental equity must be assured. To guarantee environmental equity, organizational structures endowed with the flexibility required for responding to the complex and variable manifestations of the current environmental crisis must be created. These structures will need to be capable of motivating people to comply with far-reaching reform measures (that is, they will need to promote a new environmental ethic among their members). Thompson sees the germ of such structures in certain existing regionally unbounded forms of organization, such as transnational activist networks and social movements, wildlife preservation movements, and NGOs such as Greenpeace.

A transition to sustainable forms of governance may have "... to be assisted by a myriad of institutional changes that are not themselves directly promoted by the sustainable development agenda" (O'Riordan and Voisey 1997). These institutional changes may include the creation of new public participation avenues, such as citizen advisory boards (CACs). Lynn and Busenberg described CACs as "... a relatively small group of people who are convened by a sponsor for an extended period of time to represent the ideas and attitudes of various groups and/or communities for the purpose of examining a proposal, issue or set of issues" (1995, 148). Lynn and Busenberg (1995) summarized what little empirical evaluation

there is on citizen advisory committees, finding that many CACs were formed solely to meet legal requirements in an attempt to persuade the public that there was adequate public participation while a few well-defined and well-supplied CACs, in a neutrally facilitated process, significantly impacted policymaking (1995).

Hoover and Shannon (1995) conducted a case study on local environmental policy planning in the Tug Hill region of New York to identify which institutional arrangements promoted greenway protection within a participatory democracy framework. They found that "[a] large portion of the opportunities [for cooperative discourse promoting greenway protection policies] described by study participants are organizations which function as communication linkages" (457). Additionally, "Some advocates of sustainability believe that the only way to achieve such a balance is through roundtable decision-making processes that build consensus among representatives of disparate groups" (Goldman et al. 1995, 15). The Base Closure and Realignment Acts require public input in the form of citizen sub-committees to advise base reuse committees (see chapter two). Is this an avenue for possible democratic participation and deliberation? I investigated whether these committees and/or sub-committees did significantly alter base reuse plans. If they did, then this could point towards public participation being an important ingredient for wildlife protection and sustainable development.

Another concept regarding local government is urban theory. Urban theory has not been closely associated with sustainable development. According to Judge,

Stoker, and Wolman's 1995 book *Theories of Urban Politics*, there are 12 major areas of urban theory. Of these 12 areas of urban theory, regime theory and growth-machine theory seemed to have the largest impact on issues of urban sprawl. The combined dominance of developers and government leaders in determining local urban land development has been called "regime theory" (Ramsay 1996). This area of scholarship uses a political economy approach in explaining urban (local) politics, thus going beyond the pluralist-elitist debate (Stone 1994; Swanstrom 1985; Schneider and Ingram 1997). This area of theory assigns central importance to the informal processes of collaboration between investment capital and governmental authority.

Also associated with land use and sustainability is the concept of the growth machine, as presented by Logan and Molotch (1987). Growth machine theory is very similar to regime theory in that there is an interlocking of pro-growth associations and governmental units. Logan and Molotch view land-based elites as working with each other and governmental officials to achieve intensive land use, thus increasing their profits. In the growth machine approach, the local residents are often characterized as being harmed because an inordinate amount of benefits is garnered by a limited few; to use Molotch words, "The city is for those who count, a growth machine" (1976, 310). Growth machine theory also assigns more significance to the role of non-local elites, whereas regime theory assigns more significance to the role of local elites.

The growth machine concept describes the advantage of developers in city planning and how it seems to create urban sprawl. I found this area of theory promising for understanding the mechanics of environmental negotiation in regard to closed military bases in suburban settings (i.e., geographically separate from a city). In contrast, I found urban regime theory better able to account for the political no-growth/slow-growth neighborhood preservationists in urban settings. Nevertheless, the growth machine concept is consistent with regime theory because it focuses on informal relationships between the development elite and government elite, and its rejection of the traditional democratic view -- that voters determine policy.

The growth machine in local development promotes consumerism. For example, increased consumerism needs more stores, and the construction of new stores requires more development that, in turn, increases the growth machine's wealth. Some sustainable development theorists believe that local citizens impacted by local growth, not growth proponents, need to determine what kind of development should happen in their communities (Viederman 1995, 1993; Western, Wright, and Strum 1994).

In this study, a final aspect of the growth machine is solidarity within its key membership as well as with others having related interests. Jenkins and Perrow (1977) suggests that if the non-elite striving for change can find an elite organization or individuals that also support their cause, their chances of success are

greatly increased. Along similar lines, Tarrow (1994) suggest that social change has a greater chance of occurring when there is disagreement between the controlling elite; otherwise, the status-quo will remain the same no matter how hard the non-elite try to change it.

Caldwell (1996) addressed the importance of public participation in achieving sustainability. Caldwell's 1996 article insists that an equitable future needs a new type of government that is:

...prepared to deal effectively with its [present] problems while also protecting its future [and this] requires consensus on priorities along with organizations and policies appropriate to these purposes. Today, the state is the only institution through which a nation might create consensus. (661)

However, the "State is simultaneously expected to safeguard the future, but not trusted to diminish the claims of individuals or groups for rights that prejudice the future" (Caldwell 1996, 661). To overcome this limitation, Caldwell proposes that autonomous councils be created to address critical environmental problems. Other theorists also support environmental citizen advisory boards (Platt and Cellarius 1972; Platt 1969). The idea is that independent but government sanctioned citizen councils would be required to address environmental issues that current political parties and bureaucrats are able to avoid.

Measurements

The growth machine (and related theories) describes the tendency of developers and land speculators to dominate urban growth patterns (i.e., the creation of urban sprawl). Also, the growth-at-any-cost mentality may also become the prominent paradigm due to poor economic conditions (Box 1998, 60-61). Citizen advisory boards may hold some merit for producing sustainable results. If reuse committees and/or their sub-committees behaved like empowered citizen advisory boards, could this be associated with the sustainable redevelopment of a closed base (i.e., the safekeeping of wildlife)? Citizen environmental advisory boards are not a new idea (Renn, Webler, and Wiedeman 1995; Harless 1992; Crowfoot and Wondolleck 1990). In a 1992 article by Harless he describes how 44% of elected city officials focus on environmental protection issues and that citizen environmental quality advisory boards help to ensure this environmental attention. Crosby (1995) suggests that a citizen jury (a more stringent form of advisory board) is an adequate way to meet public participation fairness and competency standards as presented by Webler (1995). Webler's fairness and competency requirements for public discourse are:

Fairness:

1. Anyone could participate;
2. Anyone could assert validity claims;
3. Anyone could challenge validity claims; and
4. Anyone could influence final determinations of validity.

Competence:

1. There has to be minimum cognitive and lingual standards;
2. There has to be equal access to knowledge;
3. There has to be consensual translation schemes; and
4. The most reliable methodological techniques have to be used. (60)

Using Webler's fairness and competency requirements to measure the amount of public involvement in reuse committees made it possible to gauge the amount of attention reuse committees paid to local community wildlife concerns. The literature sources, measurements, questions, and documents used to investigate these factors at both bases are listed in table 3.7.

Table 3.7
Tools for Measuring Public Participation

<u>Literature</u>	<u>Indicator</u>	<u>Measurements</u>	<u>Questions/Documents</u>
Caldwell 1996; Harker and Natter 1995; Lafferty 1996; Webler 1995; Western Wright, and Strum 1994; Bullard 1993; Harless; Holmberg 1992; Zisk 1992; Press 1994, 1998; Buell and Deluca 1996; Steelman 1996; Roodman 1999; Trzyna and Osborn 1995	Public Participation	Perceived fairness Perceived competence Perceived level of public participation	1. Was group interaction in the planning process generally democratic ? 2. Did any of the groups feel that a solution was forced on them? 3. Was the planning open? 4. Do you think that planning was fair? 5. Do you think it was competent? MBDocs -6, 8. PDocs -- 8,10.

Administrative Context and Processes

Literature

Under administrative considerations there are issues such as the intergovernmental relationships (IGRs) between federal, state, and local governments (Hostetter 1998; President's Council on Sustainable Development 1996; Stillman 1996; O'Toole 1993). Also under administrative context and processes are regulatory issues, stronger environmental regulations, and more funding for sustainable development planning and research (Tides Foundation 1994; Scruggs 1993; Faludi 1985).

For IGRs, the level of federal, state, and local government involvement in the closure process and the degree that this involvement was viewed as helpful by interviewees was also addressed. The level of funds available for redevelopment was measured by identifying the source(s) and level(s) of funding that were used for redevelopment planning. Finally, interviewees were asked what they thought the driving regulations were.

Governmental regulations relate to the research question because much of the reuse planning at a closed military base is dictated by government regulations.

A description of important base redevelopment regulations was presented in chapter two. The main regulations discussed were the Closure Acts, the National Environmental Protection Act, and Superfund. When dealing with wildlife preservation issues, another regulation is also important -- the Endangered Species Act of 1973 (ESA).

Neither Pease nor Myrtle Beach has a federally listed endangered species currently living within its boundaries. The selection of Pease and Myrtle Beach was intentional because I wanted to see what factors were associated with wildlife protection when the planning bodies had a full range of options available to them. A habitat given special protection under the ESA because a federally listed endangered species nested on it would have limited possible planning outcomes. Because of considerations like these, the impact on planning from government regulations seemed an important issue for consideration.

Measurements

All these measurements were gathered by analyzing documents and conducting interviews using a modified grounded theory approach. The methodological tools used for measuring administrative consideration in regard to the respective document and interview data for Myrtle Beach and Pease are presented in table 3.8. This table lists literature sources, the indicators derived from

these sources, indicator measurements, and the tools used to conduct these measurements (i.e., interview questions and documents analyzed).

Table 3.8
Tools for Measuring Administrative Context

<u>Literature</u>	<u>Indicator</u>	<u>Measurements</u>	<u>Questions/Documents</u>
O'Toole 1993; Intergovernmental Hostetter 1998; Relations President's Council on Sustainable Development 1996; Guimond 1998; Redevelopment Faludi 1985.	Funding	How well the different levels of government seem to get along The amount of funding The sources of funding	1. Could you characterize working relationships between federal, state, and local governments? MBDocs-6,8; PDocs-8,10. GAO NSIAD-95-139. GAO NSIAD-95-139.

These five factors/indicators (hereafter referred to as factors) and the measurements used to identify their presence, or lack thereof, are summarized in figure 3.2. These factors, measurements, interview questions, and document lists were tested at Lowry Air Force Base (my pilot study). Since I was using a modified grounded theory approach, I paid particular attention to comments made by the interviewees that pointed to new factors, measurements, questions, and/or documents for future use in my case studies.

Factors possibly associated with wildlife protection planning and measurements used to indentify their presence.

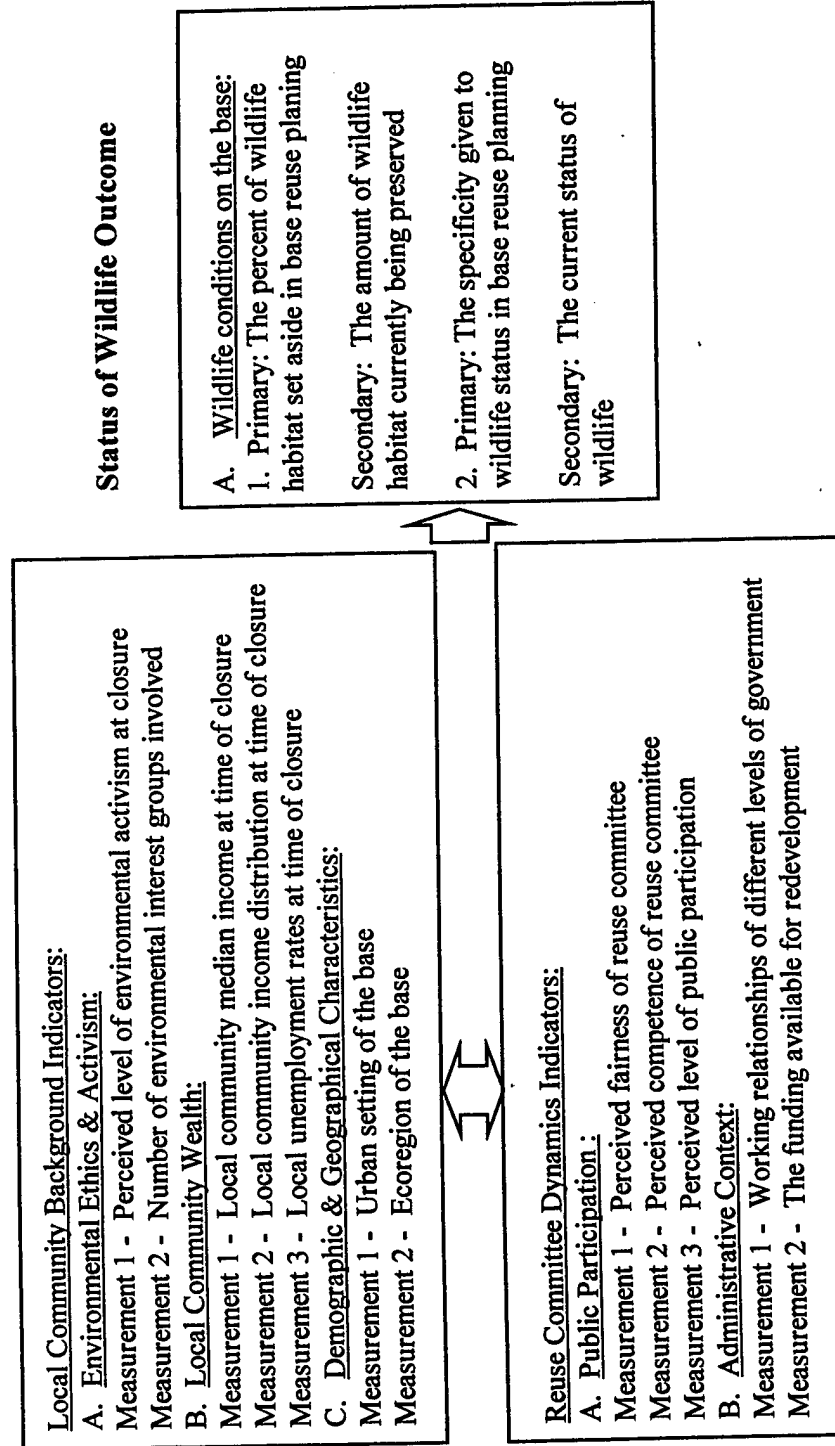


Figure 3.2
Flowchart of Factors and Their Measurements

Pilot Study -- Lowry Air Force Base, Colorado

The former Air Force base, Lowry, is located between the cities of Denver and Aurora, surrounded by neighborhoods, shopping districts, and industrial areas. The base was selected for closure in 1991, and the Air Force closed it September 30, 1994. The base had about 400 hundred acres of open space and wildlife associated with it, consisting mainly of small mammals such as foxes and rabbits (United States Air Force 1993). This open space was some of the last open space in the area and was the largest chunk of open space in the east part of Denver (Moultan 1999). Currently, this land is being converted into identical tract homes, miles of new streets, and other commercial developments: "Lowry, at full build-out, will have up to 3,000 new homes in numerous new neighborhoods..." (Moultan 1999, 1). By early 1999, pretty much anything green at the former base, except for the golf course and some protected wetlands, was bulldozed. In this process, much of the wildlife had been driven off.⁷

The redevelopment of Lowry is being praised as a wonderful example of how to successfully redevelop a closed military base (Webb 1999; Narvaes 1997; Angwin 1994). However, this economic redevelopment came at a cost of paved over open space, lost wildlife habitat, and disappearing animals. I examined The Lowry Reuse Plan, The Lowry Environmental Impact Statement, Reuse Committee

minutes, and respective newspaper articles. People holding the following positions were interviewed:

A journalist for *Westword*, a weekly newspaper
The Base Conversion Agency's Environmental Coordinator
The Lowry Redevelopment Authority Director
President of the George Washington Neighborhood Association
Executive director of the Lowry Reuse Committee
The Lowry Military Liaison Officer (transition coordinator)
President of the Colorado Golf Association
(see Appendix B for more information on the interviewees)

From these interviews and documents, my earlier impressions concerning the substantial decline of wildlife because of rapid development was verified (Callison 1998; Perez-Geese 1998; Gibeau 1998). However, Lowry was a small Air Force training base, only 1,866 acres in size. In the late 1960s, the flight line was shut down due to housing encroachment. Additionally, Lowry's location, in the middle of the Denver metropolitan area, also made it a tempting base to close because of the promise of high resale value. In contrast, most Air Force bases are situated in suburban areas (versus urban) and are larger. Lowry was an excellent site for a pilot study because of clear redevelopment results that sacrificed wildlife, its closeness, and my familiarity with it. However, its uniqueness as a base -- small size, central urban location, and lack of an active runway -- did not make it a good case study base.

Bifurcation

Because I used a modified grounded theory approach, close attention was paid to new themes that emerged in my pilot study. These new themes were then included in my next cycle of investigation and literature review. From the Lowry pilot study I identified three additional measurements for my environmental activism factor and one additional measurement for public participation:

New environmental activism measurements --

1. Determining if new wildlife surveys were performed during reuse planning
2. Determining if the respondents viewed the undeveloped land at each base using an anthropocentric (human-centered) or biocentric lens
3. Specification between wildlife habitat, open space, and recreational areas

New public participation measurement --

1. Determining the elite status of the reuse committees and subcommittees

Determining if new wildlife surveys were performed during the closure process provided commentary on the environmental activism of the respondents. If people were truly interested in protecting wildlife, they would first want to know what wildlife there was to protect. Additionally, there may have been several surveys conducted by different respondent groups. In contrast, if the parties involved in the base reuse planning process were not that concerned with wildlife protection, they would probably be less likely to conduct new wildlife surveys. The tool I used to gauge this new measurement was the analysis of Myrtle Beach documents 1-4, 6,

and 8 and Pease documents 1-8 and 10-11. This new measurement was also useful in determining the specificity given to the protection of wildlife habitat in the redevelopment process.

By determining if the respondents viewed undeveloped land as having primarily a human use-value (i.e., transforming undeveloped base land into parks, recreational areas, and greenspaces) versus having primarily a use-value based upon life in general (i.e., wildlife habitat, primarily used by animals and not humans), I could gauge a part of their environmental ethic, and this helped to determine their level of environmental activism. People who are more environmentally active tend to view wildlife as having more of "a right" to use the same land, while people who are less environmentally active may see the use of land by wildlife as being secondary to human use. The tool I used to gauge this new measurement was the analysis of Myrtle Beach documents 1, 3-6, and 8 and the analysis of Pease documents 1-2, 4-8, and 10. Furthermore, a new question was developed: "Do you think the effect of local land use planning on the status of wildlife is strong and direct, moderate and indirect, or that there is basically no relationship?" From Lowry, I had the impression that those who thought of wildlife in more human-centered terms did not think that land use planning had any direct effect on wildlife while those who thought of wildlife as having "a right" to use the same land thought that land use planning had a significant impact on wildlife conditions. In categorizing this measurement, in regard to my case studies of base redevelopment,

I use the term anthropocentric to describe data that indicates a more human-centered view, and I use the term biocentric to describe data that indicates a view that wildlife has a similar right to use the same land (this mainly refers to the undeveloped area at each base).

If a distinction was made between wildlife habitat, open space, and recreational areas, then the persons making these distinctions tended to view wildlife as more important than a person who did not. From the Lowry pilot study it was discovered that aggressive land development was easier if land was classified as open space or recreational area instead of wildlife habitat. This ability to control an issue by controlling its definition was described by Rochefort and Cobb in their 1994 book *The Politics of Problem Definition*. To measure this, I looked at Myrtle Beach documents 3, 4, 7, and 8 and Pease documents 4-8 and 10. This new measurement was also useful in determining the specificity given to the protection of wildlife habitat in the redevelopment process.

At Lowry, only the Mayors of Denver and Aurora, along with two city council members from each city, were on the reuse committee. By almost any definition, these were the elite of both cities. For greater non-elite participation, there needs to be non-elite representatives in decision-making positions. By determining the elite status of the reuse committee members, I was able to assess the level of non-elite participation. This was measured by analyzing Myrtle Beach documents 6 and 8 and Pease documents 8 and 10. Additionally, a new question

was developed: "Were there members of the general public in a decision-making position or in some part of the planning process which developed the base reuse plans?"

To influence elite decision makers on the reuse authority, non-elite individuals may be organized into citizen advisory committees. In the reuse planning process, advisory sub-committees made up of local citizens, special interest group representatives, and neighborhood organizations were usually formed to advise the reuse committee. In this respect, I attempted to assess the influence that advisory sub-committees had on their reuse committees. I did this by analyzing Myrtle Beach documents 6, 8, and 9 and Pease documents 8, 10, and 11. Since all of these measurements dealt with existing factors, no new literature review was required.

Summary

There is pressure in the reuse planning process to heavily develop closed bases much in the same way that cities have been developed -- creating urban sprawl (Cooper and Perlman 1997). Furthermore, when issues of vanishing species have been discussed, the debate has usually centered on habitat destruction in the tropical rainforests of South America, Asia, and the Pacific Rim (World Resource Institute 1994, Myers 1992; Connell 1978). Because of this, wildlife protection at closed military bases being developed in or near cities has been less than it could be.

Urban (and suburban) ecosystems embody important ecosystems that should be monitored, maintained, and improved (Cole 1983; Leedy 1979). The restoration of "wilderness ecosystems in human-dominated landscapes is a particularly challenging task but must be attempted if natural diversity is to be maintained in the long term" (Noss 1987, 2). Human dominated landscapes are usually urban and suburban areas. This is where the development vs. conservation tension of the sustainable development subcategory of land use is very apparent. As mentioned at the beginning of chapter two, military bases are like little cities, and the redevelopment of closed military bases copy, in miniature, the development verses wildlife protection tension of cities in regard to landscape size and the time period for development.

As can be seen from table 3.1, the Pease reuse committee created a wildlife refuge while the Myrtle Beach reuse committee did not, despite the similarities between the bases. My initial literature review and pilot study suggested five factors that could be related to the difference:

1. Environmental ethics and activism,
2. Local community wealth,
3. Demographic & geographic characteristics,
4. Public participation, and
5. Administrative context.

As demonstrated by the literature reviews, these factors often share some of the same theoretical roots. By investigating these factors in the two case studies, the intention was to determine whether more than one of these factors needed to be present for wildlife protection to occur. These factors, measurements, and codes used to identify their presence, or lack thereof, in the interviews and documents are summarized in table 3.9; Dat1-13 represents basic information that was collected while C1-14 represent themes used to gauge my factors and measurements. In support of the basic information categories, their respective data sources are shown. In support of the themes, coding used in their identification is listed. Thematic codes were collected using the same 8-step procedure for both the interviews and documents:

1. Read documents/transcripts,
2. Reviewed respective summary sheets,
3. Highlighted pertinent parts of documents/transcripts,
4. Reviewed and discarded excess parts,
5. Numbered the remaining material,
6. Coded the material,
7. Cut out and placed on index cards with the color of the card based on respondent group --
documents: (Close-white, reuse-yellow, NGR-pink)
interviews: (Close -purple, reuse-green, NGR-blue)
8. Placed the following information on the cards:
 - Top left corner -- document/interview # and page #,
 - Top right corner -- the respondent group and for interviews the interviewees' name,
 - Bottom middle -- codes, and
 - Bottom left -- name of the base.

Table 3.9
Thematic Codes and Data Sources

<u>Data/Code</u> <u># -- Description</u>	<u>Theme Codes/Data Sources</u>
Status of wildlife	
Dat1 - Percent of land planned for wildlife	Reuse plans
Dat2 - Percent of base actually preserved	Newspaper articles
C1 - Perceived condition of base wildlife	Wildlife- better/same/worse
C2 - The type of land use choice presented to the community	Hob-wildlife refuge/ theme park/none
Factor Measurements	
C3 - Perceived level of environmental activism	enact-high/mid/low
C4 - If a new wildlife survey was done	surv-y/n
C5 - Biocentric use-value	wild
C6 - Anthropocentric use-value	park
C7 - Specification between wildlife habitat, open space, & recreation area	spec-yes/no
C8 - Land use planning & wildlife connected	close/far
Dat3 - Number of environmental groups involved	Reuse Committee Minutes
Dat4 - Median income for local cities at closure	1990 Census data & Newington Master Plan
Dat5 - Income distribution for local cities at closure	Ditto
Dat6 - Local unemployment rates at closure	Ditto
Dat7 - Loss of civilian jobs at the base	GAO/NSIAD-96-149
Dat8 - New civilian jobs at the base	Base Conversion Agency
Dat9 - Description of the urban setting of the base	EIS, Reuse Plan & Personal Observation
C9 - Poor economic conditions pushing redevelopment	dev
C10 - Good economic conditions not pushing	dev-no
Dat10 - Bailey's ecoregion of the base (1996)	<i>Ecosystem Geography</i>
C10 - Perceived level of public participation	pub-high/mid/low
C11 - Perceived fairness of reuse committee	fair-high/mid/low
C12 - Perceived competence of reuse committee	comp-high/mid/low
C13 - Cooperation among respondents	IGR-high/mid/low
C14 - Driving regulations	regs-drive/imp
Dat12 - Amount of funding for redevelopment	NSIAD-95-139
Dat13 - The sources of funding for redevelopment	NSIAD-95-139

Once these cards were created, I sorted the cards based upon respondent group, code, base, or media (interview/document). Doing this made it possible to observe trends in regard to factors and measurements.

Endnotes

- ¹ In 1995, a new land survey of Myrtle Beach Air Force base was performed. This survey discovered that the Air Force had underestimated the land it had by 193 acres. Therefore all previous documents that reported the base as being 3,744 acres were inaccurate; the base is actually 3,937 acres (*The Sun News* 1995).
- ² In this context urban refers to heavily developed areas, such as the Denver metropolitan area. In contrast, rural areas are predominately agricultural. Suburban refer to areas that are not as developed as urban but more developed than rural. For example, the land between the Denver metropolitan area and the Denver International Airport would be considered suburban under this definition. This is the definition that I am working with, even though the United States Office of Management and Budget considers the areas around Myrtle Beach Air Force Base and Pease Air Force Base urban ones (Simmons 1997, 334). My definition is based upon the predominate local land use (i.e., urban – very developed, suburban – partially developed, and rural – very little development).
- ³ Here are the first ten of Pezzy's 23 definitions of sustainable development, along with their references:
- 1) Development that is likely to achieve lasting satisfaction of human needs and improvement of the quality of human life (Allen 1980, 23);
 - 2) As applied to the Third World ... is therefore directly concerned with increasing the material standard of living of the poor at the 'grassroots' level...(Barbier 1987, 103);
 - 3) Means the indefinite survival of the human species across all the regions of the world (Brown et al. 1987);
 - 4) Is default taken to mean 'the existence of the ecological conditions necessary to support human life at a specified level of well-being through future generations... (Lele 1991, 17);
 - 5) Is simple in the context of natural resource (excluding exhaustibles) and environments: the use of these inputs to the development process should be sustainable through time (Markandya and Pearce 1987, 9-10);
 - 6) The optimal land use strategy (Morey 1985, 551);

- 7) Requires an equity-oriented policy (Nijkamp and Soeteman 1988, 88);
 - 8) To be achieved, we will have to devise institutions, at all levels of government, to reallocate the use of stock resources towards the future, curb the pace and disruption of global climatic changes, reverse the accumulation of toxins in the environment and slow the loss of biological diversity. These are the key resource and environmental issues that must be addressed. (Norgaard 1988, 617);
 - 9) Is a much broader phenomenon embracing ethical norms pertaining to the survival of living matter, to the rights of future generations and to the institutions responsible for ensuring that such rights are fully taken into account in policies and actions. (O'Riordan 1988, 30); and
 - 10) Requires that the conditions necessary for equal access to the resource base be met for each generation (Pearce 1987, 13).
- 4
1. Managerialism, policy, and planning
 - 1.1 Legal-institutional terrain and state initiatives
 - 1.2 Civil society and NGOs
 - 1.3 Urban and regional planning and development
 - 1.4 Natural resources and rural development
 - 1.5 Indicators of sustainable development
 2. Social conditions
 - 2.1 Population
 - 2.2 Human behavior and social learning
 - 2.3 Environmental health
 3. Environmental law
 - 3.1 Property and development laws
 - 3.2 Legal issues concerning environmental racism, equity, and justice
 4. Environmental sciences
 5. Eco-design and the built environment
 6. Ecological economics
 - 6.1 Environmental and resource economics
 - 6.2 Eco-tourism
 - 6.3 Industrial ecology
 7. Ecophilosophy, environmental values and ethics
 - 7.1 Epistemology, Science, Culture and Language
 - 7.2 Philosophy, policy and development
 - 7.3 Environmental justice and racism
 - 7.4 Ecofeminism

- 8 Environmental history and human geography/ecology
 - 9 Utopianism, anarchism and bioregionalism
 - 10 Political ecology
 - 10.1 Globalization and Eco-politics
 - 10.2 Urban and regional development
 - 10.3 Rural studies
 - 10.4 Critical social movements and empowerments
 - 10.5 Theory-building and agendas for research and action
- (Pezzoli 1997a, 575-576)

⁵ I. Environmental Issues (in which the primary focus is on a particular problem or set of problems):

- | | |
|----------------------------|-----------------------------|
| 1. Global Overviews | 2. Yearbooks and Guides |
| 3. Key Regions and Nations | 4. Population growth |
| 5. Climate change | 6. Oceans and Coastal Areas |
| 7. Freshwater | 8. Biodiversity |
| 9. Forests | 10. Land use |
| 11. Pollution | 12. Toxic and solid waste |

II. Toward Sustainability (in which the primary focus is on a sustainable society or some important aspect of it):

- | | |
|--------------------------|----------------------------|
| 1. Overviews, | 2. Philosophy and ethics, |
| 3. Economics, | 4. Business and industry, |
| 5. Agriculture, | 6. Science and technology, |
| 7. Energy, | 8. Transportation, |
| 9. Cities and buildings, | 10. Health, and |
| 11. Education. | |

III. Politics and Planning (in which the focus is on the political context, environmental critics, environmentalist groups, and actions to be taken at the global, national, regional, and local levels):

- | | |
|--------------------------------------|-----------------------------|
| 1. The global context, | 2. Environmental critiques, |
| 3. Environmental groups, | 4. Global action, |
| 5. National/regional action, | 6. Local action, and |
| 7. Leadership. (Marien 1996, i-vii). | |

- ⁶ The big ten refers to the 10 biggest environmental interest groups in the country. the size is based upon membership and financial resources (mainly membership size since membership size often determines financial resources). The big ten in this study are:

<u>Organization</u>	<u>Membership Size 1995</u>	<u>Operating Budget 1995, in Millions of Dollars</u>
National Wildlife Federation	1.8 Million	97.2
Greenpeace USA	1.6 Million	26
World Wildlife Fund	1.2 Million	Not available
Nature Conservancy	825,000	141.7
Sierra Club	570,000	35
National Audubon Society	570,000	46
National Parks and Conservation Assoc.	450,000	13
Wilderness Society	310,000	14.5
Environmental Defense Fund	300,000	24.6
Natural Resource Defense Council	185,000	17.5

(Vig and Kraft 1997, 62-63)

- ⁷ This comes from personal observations from my eight years of working on, visiting, and conducting a pilot study at Lowry. For example, I was responsible for a 1993 biological survey of Lowry. In that survey we identified four fox dens in the relatively open and undeveloped southern portion of the base. All these dens now have houses on top of them.

CHAPTER 4

MYRTLE BEACH AIR FORCE BASE

They paved paradise and put up a parking lot...

Joni Mitchell, *Big Yellow Taxi*

Background

On March 24, 1942, one officer and 188 men arrived in Myrtle Beach City from the Savannah Army Air Base to begin air base operations. By the end of WWII the Myrtle Beach General Bombing and Gunnery Range (as the base was known then) had ten military units assigned to it, conducted 4,451 firing and bombing missions (mainly training missions), and housed a German prisoner of war camp (*The Sun News* 1993). Soon after the end of WWII (November 1, 1947), the Army Air Corp shut down the base and handed it over to local authorities. Less than ten years later, with the outbreak of the Korean War, the City of Myrtle Beach donated the former base to the Air Force, and on June 1, 1954, Myrtle Beach Air Force Base (MBAFB) came into existence. Civilian planes were allowed continued access to the runway under a joint operations agreement between the Air Force and a newly created county municipal airport.

Since 1955, MBAFB has been home to various fighter squadrons consisting of F-100 Super Sabres (1957-1970), A-7 Corsairs (1970-1977), and A-10 Warthogs

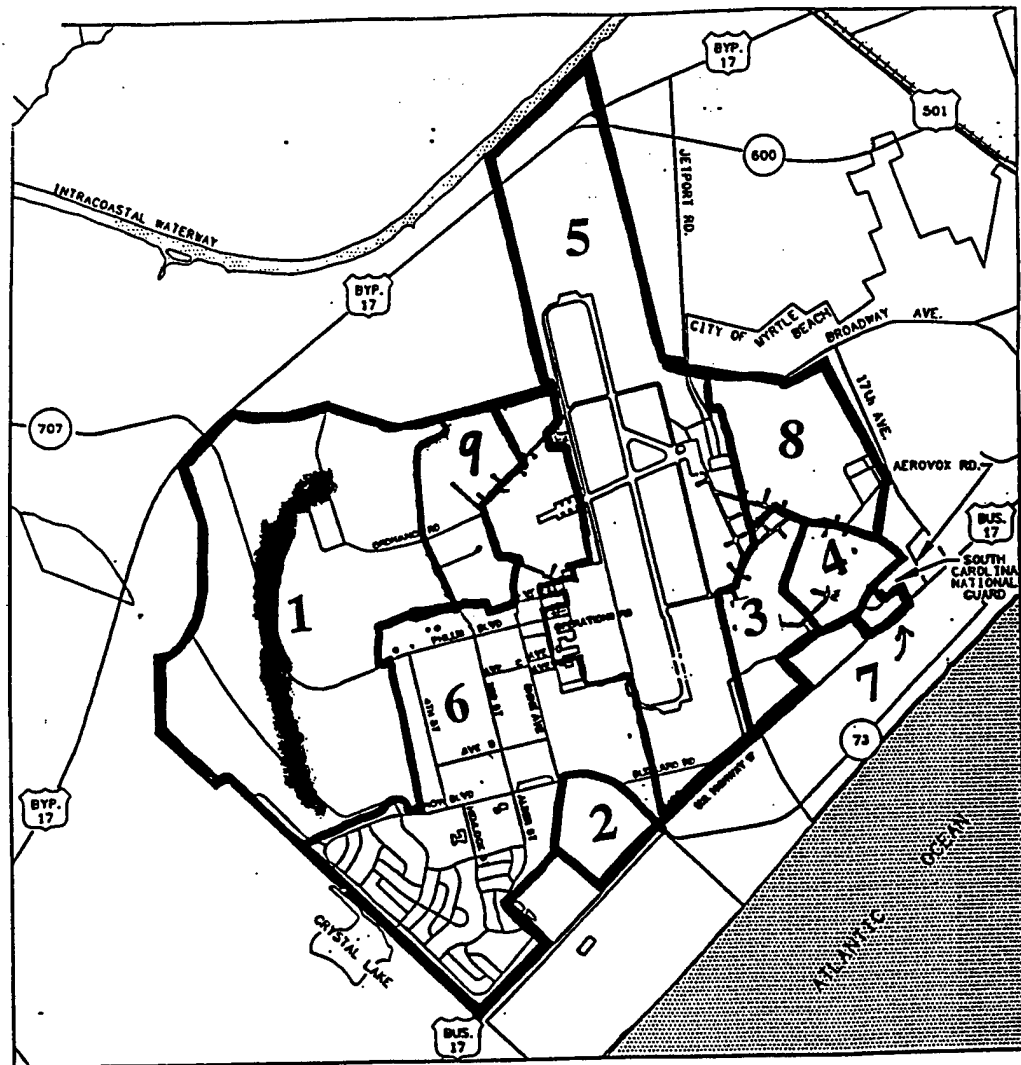
(1977-1992). Located within the city limits of Myrtle Beach City, Horry County, South Carolina, the former base is in the relatively undeveloped southern part of the city (representing 33% of the city's land) and has shorefront property on the intercoastal waterway on its north side. The other end of the base is a half-mile from the ocean. Most of the undeveloped land on the base is found in the southwest portion, around the old weapons storage area (see figure 4.1, parcel 1, next page). Additionally, the eastern part of the base is adjacent to a state park.

Demographic, Economic, and Environmental Aspects

In 1942, when base operations first began, Myrtle Beach City was a sleepy seaside town, and Horry County had only 41,226 people (United States Bureau of the Census 1940). After the end of the war there was a baby boom that caused the county's population to rise to 59,820 in 1950 and 68,247 in 1960, but things then leveled off, and by 1970, the county population was just 69,992 (United States Bureau of the Census 1950, 1960, and 1970). In the 1970s, things started to change again.

By the middle of the 1970s, Myrtle Beach City was becoming a destination resort, and in response to this their population began to grow rapidly, mainly through the arrival of people new to the area. In 1980, the Horry County population was 101,419, and by 1990, it was 144,053 (United States Bureau of the Census 1980

Figure 4.1
Myrtle Beach Air Force Base Regional Map

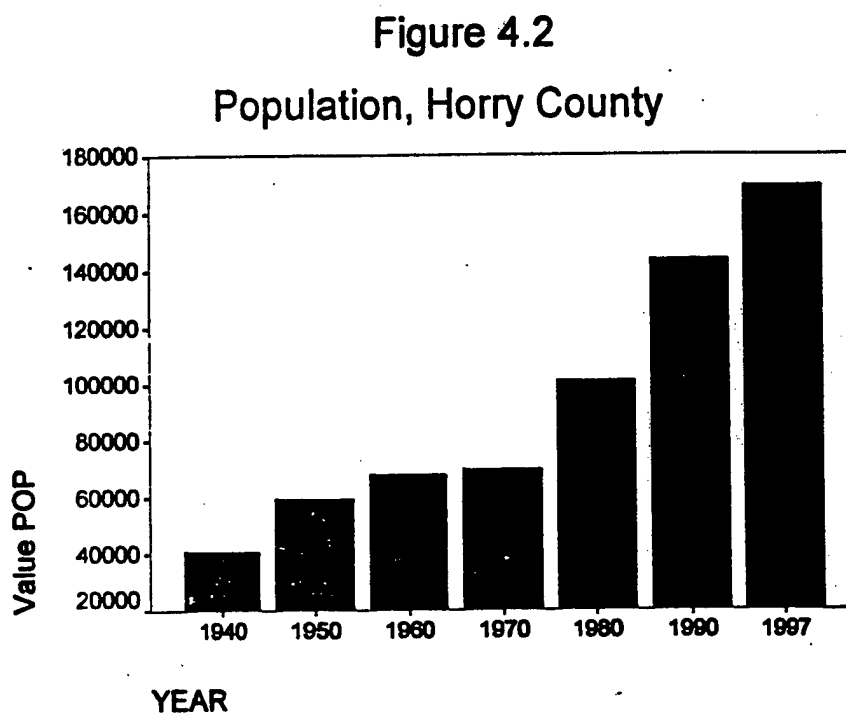


- | | |
|-----------------------|-------------------------------|
| PARCELS 1, 2, 3, 4, 9 | Land Exchange Parcels |
| PARCEL 5 | Public Airport Conveyance |
| PARCELS 6, 7, 8 | Conveyance by Negotiated Sale |
| Shaded Area | CLEAR-CUT LAND |



(reprinted with permission, see Appendix C)

and 1990). This growth trend (including 1997 Census data) is shown in figure 4.2 below:



Some of the largest increases in population occurred between 1970 and 1980 and then between 1980 and 1990 -- 44.9% and 42% respectfully (United States Bureau of the Census 1980 and 1990). Myrtle Beach City represents a sizable portion of the Horry County population, 17.2%, based upon 1990 population figures (United States Bureau of the Census 1990). Its population grew from 9,035 in 1970 to 24,848 in 1990, representing a 175% increase (Myrtle Beach Area Chamber of Commerce 1998).

By 1991, Myrtle Beach City was fast becoming a boomtown. In March 1991, Horry County was placed fifth among the top 20 fastest growing metropolitan retirement communities by population change from 1980 to 1988 (Myrtle Beach Area Chamber of Commerce 1991, 2). Myrtle Beach City and the surrounding area, known as the Grand Strand,¹ has become a national destination resort area and retirement community. In their 1990 demographic profile, the Myrtle Beach Area Chamber of Commerce reported that:

The growth in population along the Grand Strand, as well as in Horry County, has been phenomenal since the 1970 census. Whether for reasons of retirement, lower taxes or for the advantages of business investments in this thriving area of tourism, large numbers of people are deciding to relocate to Myrtle Beach. (1)

Horry County's population has grown from 69,992 in 1970 to 163,856 in 1996 and is estimated to grow to 180,600 in the year 2000 (Myrtle Beach Area Chamber of Commerce 1998). The net migration of people to Horry County from 1990 to 1998 has been approximated at 20,000 people (Myrtle Beach Area Chamber of Commerce 1998, 22), representing 12.2% of the estimated 1998 population of 164,000. Coupled with the 42% growth in population from 1980 to 1990 (from 101,419 to 144,053), this demonstrates how large portions of the people in the Myrtle Beach area are transient or "newly arrived."

Along with this population boom, the local economy has also been growing, relying mainly on tourism:

Visitors to the Grand Strand tourism region, comprising of [sic] Horry and Georgetown counties, generated a record-breaking total of \$1.66 billion in travel-tourism spending in 1988, 36 percent of the states total. Employment and tax revenues generated by travel and tourism also continued at record levels on the Grand Strand. Horry County led all counties of the state in visitor spending, lodging rentals, employment and tax revenues resulting from travel and tourism.
(Myrtle Beach Area Chamber of Commerce 1990, 4)

This is a trend that has continued to this day; "In 1997, the direct economic impact of tourism along the Grand Strand was \$2.6 billion" (Myrtle Beach Area Chamber of Commerce 1998, 7). In contrast, the entire 1990 economic impact from Myrtle Beach Air Force Base on its surrounding area was \$167 million dollars.

"Considered one of the nation's top vacation destinations, the Grand Strand hosts an estimated 13 million visitors annually" (Myrtle Beach Area Chamber of Commerce 1998, 3).

The 1990 unemployment rate for Myrtle Beach City was 3.5%, and the median annual income (in 1998 dollars) was \$31,015 (United States Bureau of the Census 1990). In 1998, Myrtle Beach's unemployment rose to 4.9% while median income rose to \$36,865 (a 18.9% increase); along with this the average cost of a home rose 25% and apartment rentals 37% (Myrtle Beach Area Chamber of

Commerce 1998). The average national median income for 1990 in 1998 dollars was \$44,090. In 1998, the national average median income rose to \$47,482 (a 7.7% increase). Therefore, over the same eight-year period (1990-1998), the average person's income in Myrtle Beach was increasing at a much faster rate than the rest of the Nation's (26% versus 7.7%). Finally, according to the Myrtle Beach 1990 census, combined household income was distributed along the following lines: less than \$15,000 -- 24.9%, \$15,000-\$50,000 -- 59.8%, and greater than \$50,000 -- 15.3%. The 1990 national average distribution was: less than \$15,000 -- 15.3%, \$15,000-\$50,000 -- 50.6%, and greater than \$50,000 -- 34.1%. Myrtle Beach had more people earning less than \$15,000, more in the \$15,000-\$50,000 range, and less in the greater than \$50,000 range when compared to the rest of the country. Some sustainable development theorists point to the distribution of wealth as a key indicator of an unsustainable economy (Boyce 1994; Goodstein 1993; Meyer 1992; Porter 1991). These theorists propose that when there is a greater inequality in income distribution there is less community stability, and this lack of stability is demonstrated by low public participation.

In 1990, the Myrtle Beach area was considered a micropolitan area.² In December of 1992, the Office of Management and Budget began to list Myrtle Beach as its own Metropolitan Statistical Area (MBD8-Bestler 1993, B1). Myrtle Beach City and Base are not in a unique ecoregion, it sits in Bailey's subtropical ecoregion,³ and this ecoregion prevails throughout the Atlantic and Gulf States (Bailey 1996, 90). The

information above represents some of the economic, demographic, and geographical background conditions in which the operation, closure, and redevelopment of the MBAFB took place. Finally, according to the 1993 Environmental Impact Statement conducted for the closure of Myrtle Beach Air Force Base (MBD1), there were no unique wildlife populations living on the base. The base provided habitat to the type of wildlife common for the area, including white-tailed deer, raccoons, opossum, turtles, frogs, snakes, and various birds: mainly migratory waterfowl (MBD1, 3-133 -- 3-134). However, the occasional alligator and black bear have been spotted passing through the base (Close-DS 1998; Close-RW; Reuse-FG; NGR-BB).

The next page has a timeline of major events in the closure and redevelopment of Myrtle Beach Air Force Base. This timeline consists of two flowcharts that have two sets of items broken out of them. The top flowchart shows major institutional actions in the redevelopment of Myrtle Beach. The lower flowchart shows events specifically related to the undeveloped land at Myrtle Beach. Below these two flowcharts related documents and interviews are shown. It is this timeline and the soon to be discussed history of the base's closure and redevelopment that my factor narrative is based. More on the history of MBAFB's closure will now be presented. Then I will discuss the interviews I conducted; the documents collected; and present a factor narrative based upon the timeline, interviews, and documents.

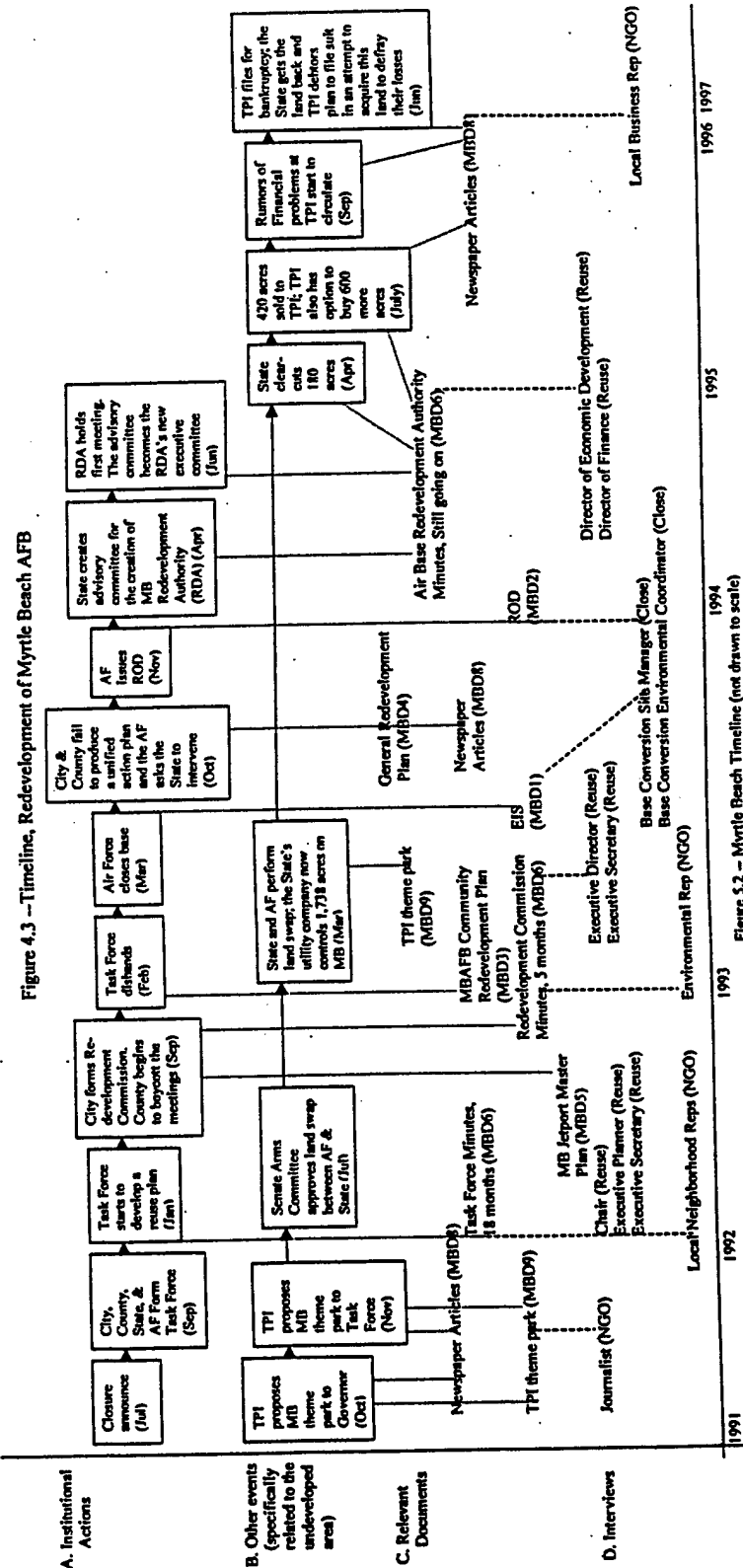


Figure 5.2 -- Myrtle Beach Timeline (not drawn to scale)

Myrtle Beach AFB Closure and Redevelopment

1991-1992

By March of 1991, most of the 50 jets (A-10 Warthogs), 100 pilots, and 2,000 support personnel of the 354th Tactical Fighter Wing stationed at Myrtle Beach Air Force Base (AFB) returned from Saudi Arabia. One month later, the Secretary of Defense, Dick Cheney, submitted his base closure list to the United States Base Closure and Realignment Commission, and Myrtle Beach AFB was on it. The Secretary of Defense cited “[p]oor flying weather and obstructions from civilian aircraft” as reasons for closing the base (*The Sun News* 1993a, 10A). This did not come as a surprise to many people in the Myrtle Beach area; there had been base closure rumors since 1988. In response to these rumors (in the May of 1990), the Myrtle Beach City Council created its Long Range Planning Committee to study the closure process, problems, and opportunities.

During July 1991, the U.S. Government announced its recommendation to close Myrtle Beach AFB. In response to this, Governor Campbell created the South Carolina Defense Base Development Commission and appointed Commissioners to this state-wide body to study the needs of military bases in South Carolina and to make recommendations to preserve and enhance the bases in South Carolina. In September 1991, when closure recommendations were made official, Governor Campbell appointed the seven local members of the South Carolina Defense Base Development Commission to serve as the Executive Committee for the Myrtle

Beach Air Force Base Redevelopment Task Force, which was created to develop a reuse plan for the former base. The Myrtle Beach City council and the Horry County Council each appointed 25 additional members to serve as a citizens advisory group to the Task Force (i.e., to serve on Task Force subcommittees).

1993-1999

The base was closed March 31, 1993, and the final base reuse plan and EIS were completed in April of 1993. The Environmental Baseline Survey was completed, and the Record of Decision was signed November of 1993. The first organization responsible for Myrtle Beach AFB redevelopment was the Myrtle Beach Air Force Base Redevelopment Task Force. The Task Force held 35 business meetings (all of these open to the public), three public hearings, and a community vision workshop. Its final product was the *Myrtle Beach Air Force Base Community Redevelopment Plan*. This was the plan that the Air Force's Record of Decision and Closure and Reuse EIS was roughly based upon. On February 1, 1993, the Task Force met for the last time. Once the Task Force disbanded, the Air Base Redevelopment Commission (which was created by City Council Ordinance 92-43, 22 September, 1992) took over base responsibilities and started to implement the Task Force's plan. The resulting action plan from this Commission was the *General Redevelopment Plan for the Air Base Planning Area*.

There were three different government institutions responsible for redeveloping the base: Myrtle Beach City, Horry County, and the South Carolina state government. Myrtle Beach City was mainly responsible for developing land south and west of the runway (parcels 6, 7, and 8, figure 4.1). The conveyance of this land was supposed to be handled by a negotiated sale between the Air Force and the city. The state acquired 1,738 acres (1,095 acres of it undeveloped) in a land swap with the Air Force (parcels 1, 2, 3, 4, 9, figure 4.1). Out of this land, 1,020 acres were slated to become a theme park (parcel 1, figure 4.1). The city was supposed to share its responsibility for developing the rest of the base with the county, which operated the airport (1,015 acres, parcel 5, figure 4.1). The county received the airport (called the Myrtle Beach Jetport) and its land in a public airport land conveyance. As originally conceived, the Redevelopment Commission was supposed to have appointees from both the city and county councils in order to coordinate development. However, tension between Myrtle Beach City and Horry County developed (MBD8-Ausband 1993a; Shain 1992a). The main point of contention was over the projected size of the airport. Horry County wanted to build a second runway to the west and parallel to the existing runway while the city of Myrtle Beach did not want a larger airport with a second runway. This issue effectively brought most redevelopment on the base to a halt (MBD8-Rigsbee 1993).

Then in the fall of 1993, prior to disclosing the Record of Decision, the Air Force asked the state to intervene (MBD4). Therefore, when the Record of Decision was issued in November of 1993, it showed that most of the remaining base land would be transferred to the state -- 1,184 acres. The state eventually created the Myrtle Beach Air Base Redevelopment Authority, a nine-person committee (three appointed by the state, three appointed by the city, and three appointed by the county). This authority is now responsible for redeveloping the remaining base land not associated with the airport or the original land swap (the 1,184 acres mentioned above).

As shown in table 3.1 and figure 4.1, the former Myrtle Beach AFB had 1,095 acres of continuous, mostly undeveloped land around its old weapons storage area. In March of 1993, South Carolina acquired 1,738 acres of air base in a land swap with the Air Force (MBD8-Shain 1993a, 1C). Originally, the state thought they had acquired 1,545 acres, but subsequent surveys discovered an additional 193 acres that were not accounted for in original base surveys. Most of this "new" land was in the southern portion of the base around the old weapons storage area (parcels 1 and 9, figure 4.1).

This land swap fit with DoD reuse priorities (see chapter 2). In the land swap, the Air Force received 13,000 acres in Sumter County for use as a bombing range at Shaw Air Force Base. Most of the state land, 1,020 acres, was eventually earmarked for a theme park/golf course/hotel/resort. This development was to be

carried out by Timberland Properties Incorporated (TPI) with the proposed name "Isle of America." In support of this development, the state clear-cut about 180 acres in 1995 (see shaded area, figure 4.1). Once this clear-cutting was done, TPI bought 420 acres, leaving an option to buy another 600 acres at a later date. However, on June 17, 1997, TPI filed for bankruptcy; the 420 acres reverted back to the state, and the state initiated plans to sell this land for housing and other related development (MBD8-Wren 1997, 1A).

As of early 1999, implementation of these plans was suspended pending the resolution of a legal challenge brought against the state by TPI debtors seeking to recoup their losses (NGR-DW 1998). Furthermore, any future base development must be done in accordance with a new zoning code, "C6, which is urban village, that was created by the city for this base" (Reuse-FG 1998, 12). This will have many sidewalks, bike paths, greenways, canals, parks, and will be designed in such a way as to reduce motorized traffic; this could also include public transportation in the form of a monorail (MBD8-Wren 1998; Hunter 1996). The urban village concept has been characterized by the same respondents (Reuse-FG 1998; MBD8-Umberger 1998, 1E; Design Works 1998) as a sustainable approach to city planning. A Myrtle Beach city planner described this neighborhood development: "The focus of the plan would be to develop a pedestrian-based community with an efficient transportation system, an adequate storm water drainage system and attractive parks and lakes" (MBD8-Merx 1998, 1C).

If the Myrtle Beach Redevelopment Authority actually goes through with designing and building a traditional-style neighborhood that is pedestrian-oriented with an efficient public transportation system, integrated green spaces, and a large park, it will be more wildlife friendly than a theme park because it will allow for more open space and two hundred acres of active and passive parks (which the theme park did not).

Documents

Preliminary Final Environmental Impact Statement, Disposal and Reuse of Myrtle Beach Air Force Base, South Carolina (MBD1). This document was produced by representatives of the Close respondent group (United States Air Force and Base Conversion Agency) and was an NEPA requirement for the closure and reuse of Myrtle Beach Air Force Base (MBEIS). This document looked at all environmental issues related to both base closure and reuse, including base wildlife. In studying base wildlife, the EIS reviewed the base's natural and cultural resource management plan, wildlife management plan, and outdoor recreation plan. According to this EIS there were no unique wildlife populations living on the base. The base provided habitat to the type of wildlife common for the area. This wildlife included white-tailed deer, raccoons, opossum, turtles, frogs, snakes, and various birds: mainly migratory waterfowl (MBD1, 3-133 - 3-134). However, the occasional alligator and black bear have been spotted passing through the base

(Close-DS 1998; Close-RW; Reuse-FG; NGR-BB). Finally, this document treated the creation of a theme park/resort on 1,020 acres of undeveloped land on the base as the only logical choice for the undeveloped area around the old weapons depot.

Record of decision, final environmental impact statement, disposal and reuse of Myrtle Beach Air Force Base (MBD2). This document was the final product of Myrtle Beach's EIS process, (Close respondent group). In this document the Air Force expressed its support for the proposed reuse of Myrtle Beach as seen in the base reuse plan. However, because of the conflict between the city and county regarding the proposed size of the Jetport, the Air Force asked the state, not the city and/or county, to have control of base redevelopment. Therefore, when this document was issued in November of 1993, it showed that most of the land would be transferred to the state.

Myrtle Beach Air Force Base community redevelopment plan (MBD3). This was Myrtle Beach's first "reuse plan," which was sponsored by the Myrtle Beach Air Force Base Redevelopment Task Force (Reuse respondent group), and it proposed four main uses for the base: airport, residential, low-density business, and theme park/resort. The airport was to operate at the present level for about 10-20 years, at which time it would be expanded with the construction of a second runway. In regard to residential reuse, the plan proposed the rental of existing base housing and the eventual creation of new residential areas. The proposed business areas were light industrial, office space, and warehousing. Finally, the theme park was to

be built in the undeveloped area of the base. This plan did not, in any way, mention the possibility of protecting some base land for wildlife habitat.

General redevelopment plan for the air base planning area (MBD4). This was the second reuse plan produced by representatives of the Reuse respondent group, often described as the action plan for Air Base Redevelopment Commission. The Air Base Redevelopment Commission, which was supposed to represent both city and county reuse goals, created this plan. However, this plan did not support the airport expansion (no second runway). Because of this, Horry County boycotted the meetings and this document can be thought of as the city's plan. It was this conflict which resulted in the state stepping in and creating a redevelopment authority. There are still no plans for a second runway. This plan also treated the creation of a theme park/resort as the most logical development option for the undeveloped area on the base, and it also failed to address wildlife protection issues.

Myrtle Beach Jetport master plan and base re-utilization study, final report (MBD5). This was the county's reuse plan for Myrtle Beach (another member of the Reuse respondent group). This plan called for all base land to be handed over to the county for future airport expansion. This plan was actually created before any other reuse plan. However, the county seems to have been satisfied with the compromise that was reached in the *Community Redevelopment Plan* (i.e., the county didn't get the entire base, but it would get a second runway). When it became apparent that the Air Base Redevelopment Commission was not going to

zone for a second runway (in the *General Redevelopment Plan*), the county returned to advocating this plan. In this plan, even less land would be available for wildlife, once the second runway was built.

Reuse committee minutes (MBD6). This document is a collection of minutes and reports from three reuse authorities associated with redevelopment planning at the former base -- Myrtle Beach AFB Task Force, Air Base Redevelopment Commission, and the Myrtle Beach Redevelopment Authority. These minutes and reports were an excellent source for finding indicators related to how people in the Reuse respondent group valued wildlife on Myrtle Beach. In these minutes the issue of wildlife protection was never, specifically, brought up (i.e., there was talk about creating parks and open space but never wildlife areas). These documents also helped to shed some light on government working relationships (or lack thereof, in the case of the city and county).

Community relations plan, survey summary (MBD7). The Base Conversion Agency (Close respondent group) initiated this survey for its *Myrtle Beach Community Relations Plan*. This plan was done in support of Base Conversion Agency's Base Installation Restoration Program. The survey consisted of 18 interviews and asked the following questions:

1. What are your, or your organization's, concerns regarding the environmental cleanup at Myrtle Beach Air Force Base?
2. What are your concerns, other than environmental?
3. What do you feel are the community's greatest concerns?
4. How would you improve communication about the cleanup at the base?
5. How would you improve communication about other developments at the base?
6. What other individuals or groups do you feel are concerned: any environmental groups, civic groups?
7. Would you recommend that I speak to any other individuals?
8. Any other comments? (MND7, 24)

There were no wildlife specific questions. However, this was still an excellent source for determining local aspects of environmental ethical concern and activism.

Newspaper articles (MBD8). This document consists of 271 articles collected from eight different journalistic sources (NGR respondent group):

1. *Alternatives* -- weekly Myrtle Beach retiree newspaper,
2. *Redevelopment Commission Newsletter* -- a short-lived quarterly newsletter produced by the short-lived Redevelopment Commission,
3. *The Wall Street Journal*,
4. *The Sun News* -- the Myrtle Beach daily paper,
5. *Urban Land* -- a quarterly journal,
6. *North Myrtle Beach Times* -- a local daily for North Myrtle Beach City,
7. *The Real Estate Finance journal* -- a monthly journal, and
8. *The Charleston Post Courier* -- the S.C. capital daily.

These sources were used to perform an "abbreviated word count" to identify the presence (or absence) of the environmental ethical concern and activism, and to identify emerging themes. In performing this "abbreviated word count," I counted the number of articles where Myrtle Beach wildlife issues were mentioned and calculated the resulting percentage. This was far from a solid quantifiable method; however, it did make the comparison between the different bases' journalistic sources easier by presenting an easy to understand comparison tool.

Timberland Properties Inc., Theme Park documents (MBD9). These are assorted source documents related to TPI and its proposed theme park. This was an excellent source for determining future land use plans for the undeveloped land at the base. The collection of these TPI documents was necessary for comparison of wildlife status outcomes for the undeveloped areas of each base. For additional information regarding these documents, please refer to table 3.2.

Interviews

At Myrtle Beach I interviewed 11 people. These interviewees are listed by their identification codes and position titles in table 4.1.

Table 4.1
Myrtle Beach Interviewees

<u>Identification</u>	<u>Position Title(s)</u>
MB-Close-DS	Base Conversion Environmental Coordinator
MB-Close- RW	Base Conversion Site Manager
MB-Reuse-BB	Secretary to the Executive Director of the Air Base Base Redevelopment Commission & Financial Director, Myrtle Beach Redevelopment Authority
MB-Reuse-ED	Chair of the Myrtle Beach Air Force Base Redevelopment Task Force
MB-Reuse-CR	Executive Director, Air Base Redevelopment Commission & Task Force Executive Planner
MB-Reuse- FG	Director of Economic Development, Redevelopment Authority
MB-NGR-ME	President of The Wordsmith, Inc. (small local business)
MB-NGR-JM	A former Myrtle Beach City Council Member
MB-NGR-DW	Business Editor, <i>The Sun News</i>
MB-NGR-MS	Senior person in charge of real estate, Burroughs & Chapin Properties
MB-NGR-BB	Conservation Chair, Winyah Group, Sierra Club

The "MB" in the identification codes refers to Myrtle Beach; this part of the code is only used in the final chapter where there are quotes from both case study bases. In this chapter the abbreviation "MB" is left off and the respondent group identifier and interviewee initials are used. All the interviewees from Myrtle Beach gave permission to have their names used. Nevertheless, to keep a certain level of privacy, I only used their initials when talking about them and referencing their quotes. Interviewee names are listed in Appendix B. Two Close, four Reuse, and five NGR group representatives were interviewed.

Close. DS worked in the base's environmental office before the base closed. Before closure he became the environmental coordinator for the Base Conversion Agency, a position he held at the time of the interview. RW also worked for the base civil engineering office before the base closed. Once the base was selected for closure, he became the Base Conversion Agency Site Manager. Both of these men had worked on the base for many years before it was selected for closure. Their continued experience with the base before and after closure made them excellent choices for the Close respondent group interviews.

Reuse. BB worked for all three reuse agencies as a secretary to their respective executive directors, although her position was not official until the formation of the Air Base Redevelopment Commission (the second reuse agency). Because she was present in all three incarnations of the reuse committee (Task Force, Redevelopment Commission, and Redevelopment Authority), this made her an excellent source of knowledge. ED was the chair of the first reuse committee, the Myrtle Beach Air Force Base Redevelopment Task Force. Since this was the organization that created the first reuse plan, he was also a natural choice. The Redevelopment Commission that came after the Task Force was established to function like a redevelopment authority. However, this commission ended up creating a new reuse plan. It was very similar to the Task Force's reuse plan, the main difference being the absence of a second runway. This led to my next choice for a reuse interview, CR, the executive director of the Myrtle Beach Air Base

Redevelopment Commission. CR was also the executive planner for the Task Force. In time, the commission fell apart, and a redevelopment authority was finally created by the state to implement the commission's reuse plan. This led to my final Myrtle Beach Reuse interview with FG, who was the Director of Economic Development for the Myrtle Beach Air Base Redevelopment Authority. Since three reuse authorities responsible for the reuse planning and development of Myrtle Beach, it seemed prudent to interview at least one representative from each organization. Nevertheless, BB pulls triple duty because she worked for all three agencies.

NGR. ME was the President of The Wordsmith Inc. In this position she did some public relations work for the Task Force and attended Task Force, Redevelopment Commission, and Redevelopment Authority meetings as a private citizen. JM was a Myrtle Beach City councilman at the time the base closed. He did not work as an official representative of the city for the Task Force (like some other councilmen did). Nevertheless, even after he lost his position on the city council (in the next round of local elections), he continued to attend public meetings held by both the Task Force and Redevelopment Commission. DW is a local journalist for *The Sun News*, the daily paper for Myrtle Beach and the surrounding area. He covered the business aspects of base closure. MS represents local business interests. His position as the senior person in charge of real estate at Burroughs & Chapin Properties is very important. Burroughs & Chapin is the biggest land

development company in the Myrtle Beach area. BB was the Conservation Chair of the local chapter of the Sierra Club called the Winyah group. She was the only environmental representative that I could find that was even remotely involved with reuse planning. Her involvement consisted of going to Myrtle Beach City council meetings where she concentrated on creating greenways in the city. She hoped that these greenways would also be created on the former base because the city controlled zoning on the base. For more information concerning each of these interviewees, again see Appendix B.

Factor Narrative

In the Fall of 1991, when the Myrtle Beach Air Force Redevelopment Task Force was formed, the idea of building an amusement (theme) park in the undeveloped portion of the base surrounding the weapons storage area was already being strongly advocated by the state, some businesses, the City of Myrtle Beach, and the reuse committee (NGR-BB, 10; NGR-DW, 5; Close-DS, 10 -- A).⁴ These referenced quotes can be found in their entirety in Appendix D, listed in the same order as they appear in this chapter and by letter of identification (i.e., A). The Task Force's Executive Planner said it best: "...immediately they [the developers] had their own consultants and they did aerial photographs and showed the Task Force their idea of where to put their theme park on the base" (Reuse-CR 1998, 11).⁵ The Task Force's reuse plan supported this alternative:

Because tourism is the mainstay of the regional economy, the reuse activities which show the greatest market potential are those which relate to visitation and recreation. Our assessment of market conditions indicate that such uses as a theme park, open space and public recreation, a museum, golf and convention hotel will be viable options as long as the elements are well-planned and designed. (MBD3, 3).

This points towards the creation of a theme park on Myrtle Beach AFB being presented as a sharply restricted choice.

Demographic and Geographic Characteristics

1991-1992. Myrtle Beach Air Force Base sits in a Bailey subtropical ecoregion, a zone that prevails throughout the Atlantic and Gulf States (Bailey 1996, 90). This lack of ecological uniqueness may help explain why environmental interest groups did not become involved in the reuse planning discussions that took place prior to base closure. The Sierra Club representative expressed the following opinion:

And though the Heritage Trust [the South Carolina Heritage Trust Wildlife & Marine Resources Department, a state agency] has the money to purchase property, they have a wish list for Horry County, because we had some endangered species that don't exist hardly any other place in the world like the Venus Fly Trap [which is not on the base] and other life. (NGR-BB 1998, 3)

Since the undeveloped land on Myrtle Beach Air Force Base was not ecologically unique and it didn't have a federally listed endangered species living on it and local levels of environmental activism and community organization seemed quite low for local environmental interest groups (NGR-BB 1998), these groups saw little hope for successfully challenging growth proponents. The Sierra Club representative commented on this: "I'm sorry that we weren't more involved, but I felt at the time that we had to choose our battles" (NGR-BB 1998, 11).

1993-1999. When the base was closed and afterwards, the undeveloped base land was still viewed as not being unique. However, around this time some people began to express the view that some of the undeveloped land on the base should be protected because it was undeveloped (Close-DS 1998, 2; Reuse-FG, 2; Reuse-BB, 2; NGR-BB, 1 -- B):

Yes [save it]. Because it's undeveloped. There's hardly any undeveloped land in Myrtle Beach City. And so you've got about 1,000, 1,500 acres out there that still got no condos or hotels or retirement communities on it. (NGR-DW 1998, 1)

Since most of the undeveloped base land had already been slated for theme park development, most of the people who had expressed the view that the undeveloped land should be preserved did not hold out much hope that it would be protected.

Many people were unhappy with the theme park development, and this was evidenced by some of the newspaper editorials of the time: "Personally, I don't want

another amusement park at my back door or my front door either for that matter... (MBD8-Sellers 1993, 4D). Some of the interviewees also commented on this: "...I heard the local residents jumped up and down when they talked about putting a theme park out there..." (NGR-JM 1998, 17).

In 1994, rumors started to circulate about TPI money problems. These rumors, coupled with the existing bad feelings about the theme park, generated more public discontent over the issue: "With the secrecy surrounding this theme park, it leaves a lot of suspicions and questions about the whole base fiasco" (MBD8-Eaton 1994, 4D). Through the following years the number of rumors grew and *The Sun News*, the local newspaper, continued to report on these rumors (MBD8-Wren 1995, 1D; MBD8-Wren 1996, 1D; MBD8-*The Sun News* 1997a, 1D, 1997b, 1A; MBD8-Wren 1997, 1A -- to name a few). Along with the rumors, public discontent also continued to grow: "When are the leaders of our community going to finally wake up and smell the coffee? I'm referring to the proposed theme park being built by TPI" (MBD8-Conway 1997, 4D). These two trends climaxed in June of 1997 when TPI filed for bankruptcy, claiming past due bills of more than \$7.5 million and assets of only \$28,367. The public and the local papers had much to say about this: "When Timberland Properties Inc. failed after eight years of promises to build a theme park ... it was a reminder of the hackneyed process by which TPI had gained access to the property" (MBD8-*The Sun News* 1998, 4D). "I mean the base is still sitting there unused five years later and that completely centers around the TPI

fiasco" (NGR-DW 1998, 11, para.). When the company folded, the 430 acres that TPI had purchased reverted back to the state, and the 600 acres that were slated for the theme park were freed for other development.

In 1998, a string of articles in *The Sun News* talked about the increasing concerns that local citizens were beginning to have in regard to growth in Myrtle Beach. The articles called "Living In A Boom Town," was published in *The Sun News* between April 27 –March 29, 1998. A quote of note was:

Participants (at the Boom Town Civic Fair sponsored by *The Sun News*) were concerned primarily with the time frame for completing the base redevelopment and whether green areas would take precedence over the concrete sprawl that has covered much of the county. (MBD8-Morgan and Bailey 1998, 8A)

Again, this desire to take undeveloped land and make green open spaces, views wildlife habitat (and wildlife) in a more anthropocentric light (Close-DS 1998, 11; Reuse-FG, 3; Reuse-CR,2; Reuse-ED, 1; Reuse-BB, 2; NGR-MS, 1; NGR-ME, 8; NGR-JM, 7, 17; NGR-BB, 11; NGR-DW, 2 -- C). In other words, the community seemed happy to preserve wildlife habitat as long as the effort did not get in the way of other uses of the land. For example, the Myrtle Beach Air Force Base golf course is also an "Audubon wildlife area," which:

... is a little over 250 acres, is a wildlife preserve. The Audubon area, is a natural preserve and it will stay that way. We don't cut grass outside of the fairways. And we do it in a natural state. We don't weed. The ditches, you know they'll grow full briars, and we leave the full briars because that's the agreement we made with the [state] Park Service to maintain the natural setting. (NGR-JM 1998, 7).

This recent interest in preserving "green" space at the base (where the theme park would have gone) only seems to emphasize how there was so little desire to preserve natural habitat early in the base reuse planning process. The current desire to preserve "green" spaces is still associated with the fact that the undeveloped part of the base, where the theme park was going to go, still represents some of the last undeveloped land in the city:

Oh absolutely, it is probably the most unique, because of its mere size. The fact that it's probably the largest single track of land within the city limit's that remains undeveloped, one of the largest. So that, in itself, makes it quite unique. (Reuse-FG 1998, 2)

Other interviewees echoed this view that undeveloped base land is deserving of some protection because it was "now" the largest chunk of undeveloped land remaining in Myrtle Beach City (Close-DS 1998, 2; Reuse-BB, 2; NGR-BB, 1; NGR-DW, 2 -- D). As mentioned earlier, the land that was going to be the theme park does not sit in a very unique ecoregion. It sits in a Bailey's subtropical ecoregion, and this ecoregion prevails throughout the Atlantic and Gulf States

(Bailey 1996, 90). Therefore, the land was still seen as worthy of preservation (in the eyes of those who would like to preserve it) because of its uniqueness in regard to the locally developed land and not because of any larger, ecologically unique quality.

As of early 1999, the 430 acres of former TPI land lay undeveloped, but partially clear-cut and in suspended animation pending the resolution of a legal challenge brought against the state by TPI debtors seeking to recoup their losses (NGR-DW 1998). But the city of Myrtle Beach wants to put a large park on this land: "The Myrtle Beach City planner wants to have a very large park out there ... having a minimum 200 acre park has been written into the basic land plan for the remaining undeveloped property out there" (Reuse-FG 1998, 3) Para.. However, it still remains to be seen if this will "truly" happen.

Local Community Wealth

1991-1992. When the base was selected for closure in 1991, the City of Myrtle Beach and much of the surrounding area was experiencing an economic boom. For example, in March 1991, Horry County was placed fifth among the top 20 fastest growing metropolitan retirement communities by population change from 1980 to 1988 (Myrtle Beach Area Chamber of Commerce 1991, 2). The 1990 unemployment rate for Myrtle Beach City was 3.5% and the median annual income (in 1998 dollars) was \$31,015 (United States Bureau of the Census 1990).

The average national median income for 1990 in 1998 dollars was \$44,090. Finally, according to the Myrtle Beach 1990 census, combined household income was distributed along the following lines: less than \$15,000 -- 24.9%, \$15,000-\$50,000 -- 59.8%, and greater than \$50,000 -- 15.3%. The 1990 national average distribution was: less than \$15,000 -- 15.3%, \$15,000-\$50,000 -- 50.6%, and greater than \$50,000 -- 34.1%. Myrtle Beach had more people earning less than \$15,000, more in the \$15,000-\$50,000 range, and less in the greater than \$50,000 range when compared to the rest of the country.

1993-1999. When the base closed in March of 1993, 799 civilian base jobs were lost. In contrast, the local economy continued growing: "In other words, the local service industry right around the base ended up hurting a little from the closure but the rest of the economy was doing just fine" (NGR-MS 1998, 2). Additionally, Horry County's population grew from 69,992 in 1970 to 163,856 in 1996 and is estimated to grow to 180,600 in the year 2000 (Myrtle Beach Area Chamber of Commerce 1998).

In, 1998 Myrtle Beach's unemployment rose to 4.9% and median income rose to \$36,865 (a 18.9% increase); along with this, the average cost of a home rose 25%, and apartment rentals rose 37% (Myrtle Beach Area Chamber of Commerce 1998). In 1998, the national average rose to \$47,482 (a 7.7% increase). Furthermore, after the base closed, the local economy remained strong:

Well fortunately we were in such a growth mode here, the economy was on a upswing. And so the devastating, what we thought would be a devastating economic impact turned out not to be. The area was growing so fast that we didn't suffer, or didn't appear to suffer economically since the closure. So that was good. (NGR-ME 1998, 8)

In fact, by 1999, there had been 1,080 new civilian jobs created on the former base, and the local economy was doing better than ever (Air Force Base Conversion Agency 1999b).

Administrative Context and Processes

1991-1992. Nine of the respondents thought that relationships between federal, state, and local governments were excellent (Close-DS 1998, 4; Close-RW, 3; Reuse-CR, 8; Reuse-ED, 4; Reuse-BB, 5; NGR-MS, 1; NGR-JM, 4; NGR-DW, 3 -- E). In contrast, seven respondents also characterized the relationship between the two local agencies, city and county, as poor (Close-RW 1998, 1, 3; Close-DS, 5; Reuse-CR, 2, 3; NGR-ME, 3; NGR-JM, 6; NGR-DW, 4; NGR-MS, 1 -- F). As mentioned earlier, this conflict centered on the county's proposal for a second runway. A newspaper article title of the time described the heart of this conflict: "MB, Horry officials clash over base runway" (MBD8-Shain 1992b, 1A). There were many other newspaper articles with similar titles.⁶ This conflict had little to do with the undeveloped land on the base as the state controlled the undeveloped land, and it was planning to sell it to TPI for theme park development (see figure 5.1).

This conflict did become more apparent in September 1992 when the City of Myrtle Beach formed the Air Base Redevelopment Commission. The Redevelopment Commission was supposed to take over reuse planning from the Task Force when the base closed in March 1993. Some of the same members that were on the Task Force were on the Redevelopment Commission (i.e., the Myrtle Beach City Mayor stayed on and the former executive planner became the new executive director). However, "the County Council Chairman withdrew his support, stating that county attorneys questioned whether the Redevelopment Commission was legally formed" (Air Base Redevelopment Commission 1993, 3). Although growth proponents were pushing for heavy redevelopment of the base, the question of what form that final development would take (outside of the theme park) and who would control it became a major point of disagreement between the proponents (i.e., the city and county).

1993-1999. The bad feelings, the poor relationships, and lack of cooperation between the city and the county reached its climax in 1993. On March 31, 1993, the Air Force closed Myrtle Beach Air Force Base. By this time, the county had gone back to promoting its original reuse plan for the base, *Myrtle Beach Jetport Master Plan and Base Re-utilization Study*, which had been completed October 1992. In April of 1993, the City's Redevelopment Commission adopted the *General Redevelopment Plan for the Air Base Planning Area*. At this point in base redevelopment, these two proponents had separate plans for the base, and each was

trying to persuade the Air Force to adopt its plan. Prior to disclosing the *Record of Decision*, the Air Force approached the state and asked it to intervene because the city and the county could not compromise on one unified plan. With a promise to create a redevelopment authority that would be in charge of redeveloping the remaining base property (minus the airport proper and land already acquired by the state in the March 1993 land swap, parcels 6, 7, 8, figure 5.1), the state stepped in. Therefore, when the Air Force issued its *Record of Decision* in November of 1993, it showed that the state would be in charge of all base land, except for 1,015 acres that belonged to the county airport (parcel 5, figure 5.1).

In June 1994, a new reuse committee was formed, the Myrtle Beach Air Force Base Redevelopment Authority. The Redevelopment Authority executive committee had nine members, all political appointees -- three by the state, three by the county, and three by the city. These appointees consisted of two members of the county airport advisory board, a real estate broker, developers, and an attorney.

This action seemed to please the local public, which had grown tired of the city/county conflict as evidenced by some newspaper article titles from the time:

- Editorials: "MB base gridlock: Who knows best?"
(MBD8-*The Sun News* 1993b, 4A)
- "County tells city: Any base plan but yours!"
(MBD8- *The Sun News* 1993c, 1A).
- Editorials: "It's too late now to agree on base."
(MBD8-*The Sun News* 1993d, 6A)
- "Oh, for a base facilitator!" (MND8-Ausband 1993b, 4D)

The creation of this new organization seemed to help end the county/city dispute. From here on out, city and county relationships seemed to improve, "And as soon as they formed, they got together and started working together almost like it was meant to be" (Close-DS 1988, 5). This view was also supported by the publication of fewer newspaper articles concerning conflict between the municipalities in regard to base development.

Overall, planning funds made available for the Task Force, Redevelopment Commission, and Redevelopment Authority from 1991 to 1995 totaled \$26,260,867 (in 1998 dollars). This funding came from four federal sources: the Office of Economic Adjustment, the Federal Aviation Administration, the Economic Development Administration, and the Department of Labor.

Many of the interviewees felt that government regulations were more of an implementation issue and were not driving base redevelopment; the Task Force chair mentioned this: "You know, these regulations [environmental and property disposal regulations] you had to pay attention to when you're trying to implement the plan. But when you were writing the plan, it was pretty much virgin territory so to speak" (Reuse-ED 1998, 14). Other interviewees also expressed this view (Close-RW 1998, 8, 9; Reuse-ED, 14; Reuse-CR, 16; Reuse-FG, 13 -- G).

Environmental Ethical Concern and Activism

1991-1992. The Task Force formed in September 1991 and immediately started to conduct meetings. The Task Force executive committee was comprised of gubernatorial appointees consisting of a retired base commander (the chair), city representatives (the mayor, a councilmen, and a planner), and county representatives (county council chairman, a county councilman, and an airport representative). During this time, local environmental concern and activism seemed to be low, as evidenced by the Task Force not having organized an environmental subcommittee among the ten that it did establish:

1. Economic development,
2. Health & Welfare (was supposed to subsume environmental issues),
3. Airport,
4. Human Resources,
5. Base planning,
6. Transportation,
7. Education & training,
8. Retirees,
9. Special tasking, and
10. Special Projects. (MBD2, 1-2)

The Health & Welfare subcommittee shown above didn't take minutes of its proceedings, thus leaving no written record of its decisions and recommendations (Reuse-BB 1998).

Other documents of the time also reflected a lack of environmental concern in base redevelopment. The Draft EIS was made available for public comment

during a November 14, 1991 public scoping meeting that was held in the Myrtle Beach High School Auditorium. There were 88 comments made from a total of 22 sources (written and oral). Out of these 88 comments, only two related to wildlife issues (2.3%):

An effort should be made to identify biological resources that are significantly valuable relative to the remaining property.
(MBD1, 9-9)

Wildlife and historical areas can be preserved within the FOLTA [a military training area on the base] by the use of the area for an air and space museum. (MBD1, 9-14).

The Task Force's reuse plan was also made available for public comment (in 1992), and out of the 42 comments, none related to Myrtle Beach wildlife issues (0%).

Furthermore, I could only find one reference to a Myrtle Beach AFB wildlife closure survey: "...Data were also secured from interviews with base personnel, a field visit, and a wetland delineation" (MBD1, 3-130). This wildlife survey was described as a "field visit," implying that it was less than a full-scale wildlife survey. The Base Conversion Agency Site manager confirmed this in his interview: "I think they just checked the endangered species stuff. Not a whole wildlife survey" (Close-RW 1998, 10).

All of the Myrtle Beach interviewees characterized the local level of environmental activism as "low" (Close-DS 1998, 11, 12; Close-RW, 6; Reuse-FG, 5; Reuse-CR, 14; Reuse-BB, 9; NGR-DW, 9, 15, 16; NGR-BB, 6, 13; NGR-MS, 1;

NGR-JM, 7; NGR-ME, 5 -- H). When asked why they thought this, the Sierra Club representative related it to the "newly arrived" aspect of the population in the Myrtle Beach area: "Maybe this area is not attracting the environmentalist" (NGR-BB 1998, 6).

Six of the interview respondents, with the Sierra Club representative being the lone exception, saw the connection between land use planning and impacts on wildlife as distant and weak. Additionally, some of the documents revealed that little distinction was made between recreational areas, parks, and wildlife habitat:

The land to be disposed of by the Air Force comprises approximately 3,744 acres, including the airfield, aviation support, industrial, commercial, educational, medical, residential, and public facilities and recreation areas, as well as vacant land throughout the base. (MBD1, S-1)

Proposed land uses for the base are shown in the accompanying figures and listed as follows:

	<u>Interim</u>	<u>Long-term</u>
<i>Mixed use</i>	<i>200 acres</i>	<i>130 acres</i>
<i>Recreation</i>	<i>690 acres</i>	<i>560 acres</i>

[emphasis added]. (MBD3, 2)

This begins to show how the documents viewed wildlife in an anthropocentric light.

Finally, the interviewees themselves also had a tendency to view wildlife in anthropocentric terms (Close-DS 1998, 11; Close-RW, 4; Reuse-FG, 3; Reuse-CR, 1-2; Reuse-ED, 1; Reuse-BB, 2; NGR-JM, 7,17; NGR-ME, 8 -- I).

Environmental interest groups did not take part in the reuse discussion (Close-DS 1998, 8; Reuse-ED, 9; Reuse-CR, 8-9; NGR-BB, 11; NGR-ME, 4 -- J). Two reasons seem to account for this. The before mentioned low level of environmental activism is one. As the Sierra Club representative stated, "We're organized, but we can't seem to get very many people to join, to stay with us" (NGR-BB 1998, 6). Since environmental interest groups usually have to rely on local support (Tonn and Petrich 1998), this lack of support prevented environmental groups from establishing a local foothold. No local preservation coalition was formed to oppose growth proponents. Reason two, there was no organized core of local citizens committed to protecting wildlife habitat on the base. According to the NGR respondent group, the Myrtle Beach area did not have a history of community organization and political action (NGR-BB 1998, 5-9; NGR-DW, 4, 8, 15 -- K).

1993-1999. Environmental activism continued to be low as was shown by an ongoing lack of environmental interest group activity. In fact, only one environmental interest group, the local chapter of the Sierra Club, even showed the remotest interest in base redevelopment. A representative of this group attended Myrtle Beach City planning meetings in 1993 in an attempt to increase open spaces and create greenways in the city. She hoped that if the city started zoning for these things, it would also create similar zoning ordinances for the air base:

...we would go for the big picture [zoning throughout the city] and try to impact the big picture in hopes that it would trickle down to impacting what was done with the base. (NGR-BB 1998, 11)

Other than this action by the local chapter of the Sierra Club, there was no evidence of any environmental group activity in base reuse discussions (Close-DS 1998, 8; Reuse-ED, 9; Reuse-CR, 8-9; NGR-BB, 11; NGR-ME, 4 -- L).

In the 271 articles collected from local journalistic sources, only one reference (.37%) to wildlife issues at Myrtle Beach was found:

I guess this land is exempt from any wildlife protection. Are the wetlands going to be covered up like they are in the other areas of Horry County where building continues? (MBD8-Eaton 1994, 4D)

This letter to the editor also commented on what seemed to be a lack of concern for base wildlife by local authorities and citizens. This low level of environmental activism and organized community advocacy for wildlife habitat protection combined with an elite controlled reuse committee and a strong growth driven economy pointed to the continued existence of a strong growth machine controlling base redevelopment.

Even though environmental activism was low, the perceived environmental ethic seemed a little stronger. In fact, five of the respondents thought that undeveloped base land should have been preserved. This might point to an environmental ethic looking for an avenue for action. One of the interviewees

hinted at this: "I would say we are medium. We have potential, but we're at medium activity because of the limited number of people that are willing to jump in there and actually help lead" (NGR-BB 1998, 13).

In 1994, there was no noticeable difference in environmental activism as evidenced by the results of an environmental survey conducted in the fall of that year for the Air Forces' Community Relations Plan:

Few interviewees expressed concerns about the environmental aspects of the base conversion, and even fewer felt that the general public was concerned about the environmental status of the base. The one concern about the base redevelopment brought up by many of the interviewees was traffic, and the fear that development of the base would aggravate an already congested traffic situation in the area. (MBD7, 25)

This is a trend that seems to have been very prominent until quite recently.

Some of the interviewees have implied that after all this growth driven development, which chopped down many a tree, things are now beginning to change:

You're starting to see a real ground swell of anti-growth, anti-development organizations now that we've seen, you know Broadway at the Beach.... Now that all the trees are being cut down, you're starting to see people come out and say, hold on a minute, let's just slow down. (NGR-DW 1998, 8)

The representative of the Sierra Club also alluded to the same trend: "Now there are a lot of citizens that have really raised a question and complaints about the

development. The way the development has taken place, the bad neighbor type decisions that are being made" (NGR-BB 1998, 5). In this respect, the general public may have finally arrived at a point where they care about their local environment and are starting to do something. Because of this, some local citizens are beginning to become politically and environmentally active when they see their local area and environment changing in ways they do not like. In fact, two of the interviewees talked about the same recent story, the halting of a new condo complex, to demonstrate how individuals were beginning to work together to protect their neighborhoods and their surrounding natural environment (NGR-DW 1998, 8, 14; NGR-BB, 5, 9 -- M):

I know that recently community groups have been able to put pressure on local government to stop development for about the first time. That was just a few weeks ago. Some guy wanted to build a condo. And the neighborhood showed up and they had several meetings ... they had to go here, they had to go there, everywhere they went, the developer kept appealing the decision. And finally the city said, 'no, you can't build.' ... you're starting to see that type of community activism against growth now, and it's starting to work. (NGR-DW 1998, 14)

This recent desire to control the type of development that is occurring around them seemed to be related to individuals who have been in the area long enough to start thinking of themselves as locals:

They're just here recently, retiring here, don't really have a sense of, you know, how this place was five, ten, fifteen years ago. Maybe that was a reason that they weren't too concerned about it [the land on the base] because it hadn't really been a part of their lives at that point [when the base closed versus now].... Now that all the trees are being cut down, you're starting to see people come out and say, hold on a minute; let's just slow down. (NGR-DW 1998, 8).

NGR-DW also stated that "You're starting to see a real ground swell of anti-growth, anti-development organizations..." (8).

Public Participation

1991-1992. Right after Myrtle Beach's closure was announced and the Task Force formed its subcommittees, it asked the county and city to nominate members. In response, the county and city jointly appointed 50 business and community leaders, consisting of retired military officers, bankers, developers, business owners, realtors, city planners, county planners, a retired mayor, and a retired state legislator. This nomination process was not a public selection but a political appointee process where:

...it was mostly, you know, friends or people they [Task Force members] know -- I know Joe Schmoe; he's a good guy. We do business together. I think he'd be good for this kind of thing. It wasn't necessarily [that] they live next to the base and they have a stake in what happens there.... (NGR-DW 1998, 10)

Therefore, there seemed little opportunity for non-elite members of the local community to be in positions that would directly influence decision makers. This was further evidenced by the interview responses where all of the respondents did not think that there were ordinary (non-elite) individuals in reuse decision-making positions or even in advisory positions (see Appendix E for a descriptive summary of interview results). The Task Force executive planner described them as "...heavy hitters in the community, you know, in terms of being top leadership people" (Reuse-CR 1998, 10). He went on to further describe them as "...business, public, and private community leaders.... both elected and not elected" (Reuse-CR 1998, 15).

In regard to undeveloped base land, there seems to have been a strong and clear coupling between wealthy interests outside of Myrtle Beach and remote government decision makers. The outside wealthy interests were Charleston-based TPI and its joint venture partners Tishman Realty & Construction Co. of New York; ARA Leisure Services Inc. of Philadelphia; Hale Irwin Golf Services Inc. of St. Louis; and Landmark Entertainment Group of Hollywood, California (Moore 1993). The main government decision maker that worked with and supported TPI's theme park proposal was the Governor: "The resort has won the support of the governor's office for a number of years, and Campbell [then governor] officials were proud the project had gone this far" (Moore 1993, 6A). Many of the interviewees also talked about this partnership between TPI and the Governor: "The only thing they [TPI]

had was connections to the governor's office" (NGR-DW 1998, 11). "But he [the governor] had a very close friend [name left out by request of interviewee], who was very involved with the TPI project" (Reuse-ED 1998, 11).

This partnership was often referred to by the interviewees as a backroom deal, "... and it looked as though it was underhanded politics" (Reuse-ED 1998, 12). "It was sort of a backroom state deal" (NGR-DW 1998, 11, para.). This points towards a coupling of business, development, and government elite in the reuse decision-making positions, in a growth machine manner as described in the public participation section of chapter three. This, combined with the local growth-driven economy, points towards a strong growth machine in charge of redevelopment at Myrtle Beach Air Force Base, especially in regard to undeveloped base land.

Furthermore, the interviewees agreed that at this early stage of reuse planning and redevelopment, the local community did not seem unified or even very interested in how the base would be redeveloped (Close-DS 1998, 9; Reuse-CR, 12; Reuse-BB, 3; NGR-JM, 5, 9; NGR-DW, 5, 8; NGR-ME, 4; NGR-BB, 6 -- N).

What was the cause for this relative lack of organized community interest about base redevelopment, base environmental issues, and the protection of base wildlife habitat? As noted by the journalist:

...you've got the situation where people are moving here ... that don't really have a stake in the community. There's no people who've lived here for 40 or 50 years.... And so, I think that lack of community is maybe what has the town's people sort of look the other way at the development and not really care that much about wildlife preservation. (NGR-DW 1998, 8-15)

Others in the NGR respondent group echoed this view (NGR-BB 1998, 5, 8-9; NGR-DW, 4, 15 -- O). In further support, I could only find one neighborhood organization that was involved in the reuse discussion, the Old Forest Neighborhood Association (NGR-DW 1998, 6).

Nevertheless, in regard to public participation, the Task Force received high marks; eight of the respondents thought that the Task Force was very open to the public, nine thought the Task Force treated everyone fairly, and seven thought the Task Force had made competent decisions (Close-RW 1998, 7; Close-DS, 13; Reuse-ED, 3; Reuse-BB, 7; Reuse-CR, 14; NGR-ME, 5; NGR-MS, 15; NGR-DW, 9; -- P. Close-RW, 5, 8; Close-DS, 14; Reuse-CR, 15; Reuse-BB, 8; Reuse-ED, 9; NGR-ME, 6; NGR-MS, 2 --Q. Close-RW, 8; Reuse-ED, 10; Reuse-CR, 15; NGR-JM, 10; NGR-ME, 6; NGR-MS, 2 -- R). Furthermore, six of the respondents thought that public comments were openly received: "They were well received. I don't believe they blew anybody off. I think they addressed comments" (Close-DS 1998, 14). Finally, nine respondents described the general reuse planning process as a democratic one. When respondents thought the process was not open, fair, or competent, their comments centered on the theme park issue (Close-DS 1998, 8;

Reuse-ED, 11; NGR-DW, 5, 8, 11 -- S). The chair of the Task Force commented, "There was very little public input into that land swap deal, with TPI coming in" (Reuse-ED 1998, 13).

1993-1999. In June 1994, a new reuse committee was formed, the Myrtle Beach Air Force Base Redevelopment Authority, and this organization continued the elite tradition. The Redevelopment Authority executive committee had nine members, all political appointees -- three by the state, three by the county, and three by the city. These appointees consisted of two members of the county airport advisory board, a real estate broker, developers, and an attorney. Furthermore, when it came to listening to the public about what should be done with undeveloped base land, government decision makers were still being perceived as uninfluenced by public opinion. This was evidenced by some of the newspaper editorials of the time: "Personally, I don't want another amusement park at my back door or my front door either for that matter..." (MBD8-Sellers 1993, 4D). Some of the interviewees also commented on this: "...I heard the local residents jumped up and down when they talked about putting a theme park out there..." (NGR-JM 1998, 17).

Also, local community involvement in base redevelopment was still perceived as low as was evidenced by a quote from the Redevelopment Authority's Economic Development Director: "No. And amazingly enough we've had very little. I mean I would have thought we'd have some groups come to us, but we haven't. Not since I've been here" (Reuse-FG 1998, 7). Other interviewees also confirmed the continued absence of substantial activity by environmental and neighborhood organizations in the redevelopment process (Close-DS 1998, 8; Reuse-ED, 9; Reuse-CR, 8-9; NGR-BB, 11; NGR-ME, 4 -- T).

Wildlife Status

After all this reuse planning and redevelopment, base wildlife populations are perceived as being "in worse condition" than when the Air Force managed the site. Ten respondents thought that base wildlife conditions were the same or worse because of clear-cutting that took place in 1995 on 180 acres of land that were sold to TPI -- see shaded area of figure 5.1 (Close-DS 1998, 1; Close-RW, 1, 2; Reuse-FG, 1; NGR-MS, 1; NGR-BB, 1; NGR-DW, 1 -- U). "I think they're worse off. Well, there seems to have been some clearing out of some of the timber so that there aren't that many woodlands ... we don't see any wildlife out there..." (Reuse-BB 1998, 1). Additionally, six of the respondents thought that there was now less wildlife habitat compared to when the base was open.

At the time of this study the 430 acres of former TPI land lay undeveloped but partially clear-cut, pending resolution of a legal challenge against the state by TPI debtors seeking to recoup their losses (NGR-DW 1998). The city of Myrtle Beach would like to put a large park on the this land: "The Myrtle Beach City planner wants to have a very large park out there ... having a minimum 200-acre park has been written into the basic land plan for the remaining undeveloped property out there" (Reuse-FG 1998, 3, para.). It still remains to be seen if Myrtle Beach's new level of population stability and its resulting environmental activism as evidenced by the failed condo complex can successfully survive the growth machine. Or will this land end up like most of the city -- paved over?

Factor Model

From the factor narrative it can be seen how there was a low level of public participation and environmental activism that seemed to be associated with a perceived worsening of wildlife conditions and the fast-tracking of the theme park in the undeveloped area of the base. All the trends from this narrative are presented in table 4.2.

Table 4.2
Myrtle Beach Trend Summary

<u># -- Status of wildlife</u>		<u>Theme/Data</u>
Dat1	Percent of base land planned for wildlife refuge	0%, 0 acres
Dat2	Percent of base actually a wildlife refuge	0%, 0 acres
C1	Perceived condition of base wildlife	7 worse, 3 same
C2	The type of land use choice presented	Hob – theme park, Little wildlife specificity
<u># -- Factor Measurements</u>		
C3	Perceived level of environmental activism	Low (11)
C4	New wildlife survey?	Only a partial one
C6	Value of wildlife seen as anthropocentric	Yes
C7	Specification between wildlife habitat, open space, & recreational areas	Little to none
C8	Land use planning & wildlife connection	Distant and weak (6)
Dat3	Number of environmental groups involved	0
Dat4	Median income at time of closure	\$31,015 (in 1998 dollars)
Dat5	1991 income distribution for Myrtle Beach City	Less than \$15,000-24.9%
		\$15,000-\$50,000-59.8%
		Greater than \$50,000- 15.3%
Dat6	Local unemployment rates at time of closure	3.5% (1991)
Dat7	Loss of civilian jobs at the base	799
Dat8	New civilian jobs now at base	1,080 ⁷
Dat9	Metropolitan setting of the base	Suburban ⁸
C10	Economic conditions related to redevelopment	Development not driven by poor local economy
Dat10	Bailey's ecoregion of the base	Subtropical
C11	Perceived level of public participation in regard to the undeveloped land on the base	Relatively Low
C12	Perceived fairness of reuse committee in regard to the undeveloped land on the base	Relatively Low
C13	Perceived competence of reuse committee in regard to the undeveloped land on the base	Relatively Low
C14	Cooperation among respondents in regard to the undeveloped land on the base	N/A
C15	Driving regulations	Implementation issue
Dat12	Amount of funding for redevelopment	\$26,260,867 as of 1995 (in 1998 dollars)
Dat13	The sources of funding	OEA, FAA, EDA & DOL (see table 2.2)

Conclusion

As mentioned before, the financing for the theme park fell through. If the funding had been available, there would now be a theme park on this land. Unfortunately, a portion of this land has already been clear-cut and may be sold to developers to defer costs incurred by the failed theme park. Nevertheless, any future development that is done on the base must be done according to a new zoning code, "C6, which is urban village, that was created by the city for this base" (Reuse-FG 1998, 12). This urban village will have many sidewalks, bike paths, greenways, canals, parks, and will be designed in such a way as to reduce motorized traffic. This could also include public transportation in the form of a monorail (MBD8-Wren 1998; Hunter 1996). The urban village concept is a sustainable approach to city planning (MBD8-Umberger 1998, 1E; Design Works 1998). The Redevelopment Authority at Myrtle Beach is heavily pushing this concept:

...you have to have people living, working, and playing in close proximity in the same area. As opposed to, I work here, I play here and I live there.... And I've got to get from here to there ... the reuse planning was focused on ... a traditional neighborhood development, urban village.... They said what is this urban village stuff? We don't have any urban villages here. All we got is tourist places. That's the point ... what about the people who live and that work here? What can we do for them? (Close-FG 1998, 11)

A Myrtle Beach city planner described this planned neighborhood development:

"The focus of the plan would be to develop a pedestrian-based community with an

efficient transportation system, an adequate storm water drainage system and attractive parks and lakes" (MBD8-Merx 1998, 1C).

If the Myrtle Beach Redevelopment Authority actually goes through with designing and building a traditional neighborhood that is pedestrian-oriented with an efficient public transportation system, integrated green spaces, and a large park, it will be more wildlife friendly than a theme park would have been. Unfortunately, whether it's a theme park or a new urban village, neither of these redevelopment plans included the protection of wildlife habitat. This low level of wildlife protection seems to be associated with a low level of environmental activism and public participation.

Endnotes

- ¹ The Grand Strand consists of two counties (Horry to the North and Georgetown to the South, four cities and 11 beach-front communities that are along the South Carolina coast just south of the North Carolina state line. Listing these cities and communities from North to South:

Cities

North Myrtle Beach
Conway
Myrtle Beach
Georgetown

Beach Front Communities

Little River
Cherry Grove Beach
Ocean Drive Beach
Crescent Beach
Atlantic Beach
Windy Hill Beach
Surfside Beach
Garden City Beach
Murrells Inlet
Litchfield Beach
Pawleys Island

- ² A micropolitan area is defined as "an independent city with 15,000 or more residents ... that is not a part of any officially designated metropolitan area" (Myrtle Beach Area Chamber of Commerce 1991, 2).
- ³ Bailey's subtropical division is marked by high humidity (especially in the summer) and the absence of cold winters. Freezes are uncommon but possible. Rainfall is ample all year round. Pines and mesquite are the most common trees although palm trees can also grow there.
- ⁴ When references to interviews are grouped like this, refer to Appendix D for listings of interview quotes referenced but not presented in chapter 5. These references are listed chronologically as they appear in chapter 5. These groups are also given titles related to the factor that they measure to make them easier to find.
- ⁵ These quotes should be taken as examples of major issues, not as single opinions. Usually, they represent either widely held opinions, especially salient points, and/or commonly accepted facts and/or beliefs. If the expressed belief can be found in all three respondent groups and in both interviews and documents, then it shows how this belief was a unifying theme (also refer to endnote four).

- ⁶ A content analysis of article titles in local newspapers from 1992-1993 chronicles a deteriorating relationship between the city and county:

“Differences over base use surface” (Shain 1992a, 1A);
“Jetport proposal pie in the sky? Plan for 2nd runway, cargo hub defended” (Shain 1992c, 1A);
“MB, Horry officials clash over base runway, authority” (Shain 1992b, 1A);
“Tug-of-war for base worries developers” (Shain 1993d, 3A);
“Air Base plans divide Myrtle Beach group” (Rigsbee 1993, 1A);
“Plans for Air Base Land Fundamentally Different” (Barra 1993);
“Horry tries to sway MB on Jetport” (Morris 1993, 1C);
“Second airstrip still fuels jetport debate” (Shain 1993b, 1C);
“M.B. Jetport: Panacea or Boondoggle” (Shaw, Panzrino, and Maxwell 1993, 10);
Editorials: “MB base gridlock: Who knows best?” (The Sun News 1993b, 4A);
“County tells city: Any base plan but yours!” (The Sun News 1993c, 1A);
“Editorials: It’s too late now to agree on base” (The Sun News 1993d, 6A);
“Oh, for a base facilitator” (Ausband 1993b, 4D);
“Editorials: County Council is dysfunctional” (The Sun News 1993e, 8A);
“Horry’s plan for base land called ‘ruse’” (Shain 1993c, 1C); and
“Editorials: Unite behind one base future plan” (The Sun News 1993f, 4E).

- ⁷ This number was acquired from the Air Force Base Conversion Agency Home page, 24 February 1999b.
<http://www.afbc.hq.af.mil/ols/myrtle.htm>.

- ⁸ In this context urban refers to heavily developed areas, for example the Denver metropolitan area. In contrast, rural areas are predominately agricultural. Suburban refer to areas that are not as developed as urban but more developed than rural. For example, the land between the Denver metropolitan area and the Denver International Airport would be considered suburban under this definition. This is the definition that I am working with even though the United States Office of Management and Budget considers the area around Myrtle Beach Air Force Base and Pease Air Force Base urban ones 50,000” (Simmons 1997, 334). My definition is based upon the predominate land use model (i.e., urban – very developed, suburban – partially developed, and rural – little).

CHAPTER 5

PEASE AIR FORCE BASE

Countless are the things thou has made, O God. Thou has made all by thy wisdom;
and the earth is full of thy creatures, beasts great and small.

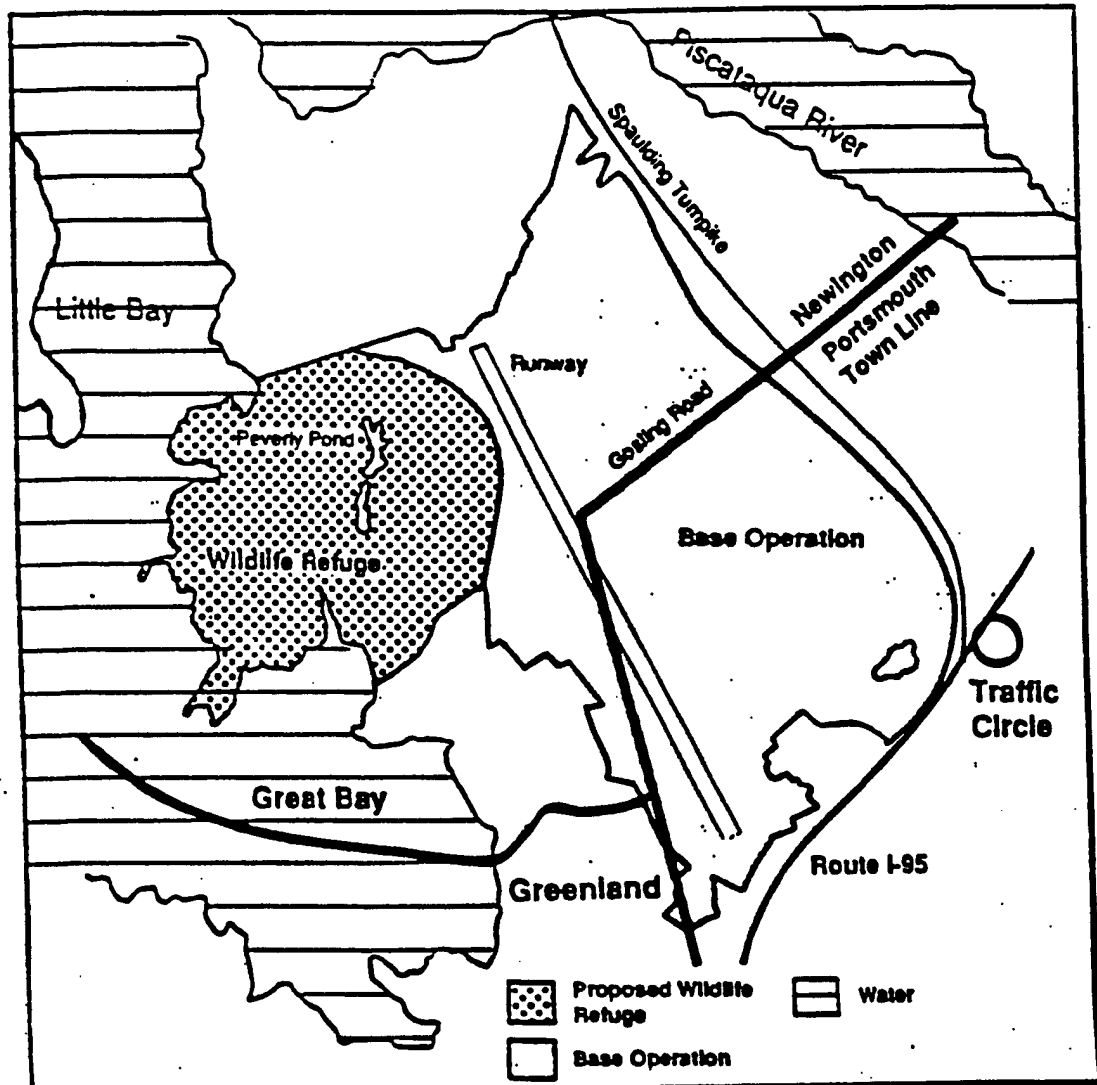
Psalm 104

Background

The day before the Fourth of July in 1954, groundbreaking ceremonies at the brand new Pease Air Force Base took place. Initial facilities consisted of two buildings for office space along with two dwellings for 18 officers and 180 airmen (Rowe 1987, 270). Pease AFB was named after Capt. Harl Pease of New Hampshire, who was posthumously awarded the Medal of Honor in WWII. In December of 1988, the closure of Pease AFB was announced, and on March 31, 1991, it became the first major Air Force base to close in ten years.

Pease AFB, located in Rockingham County in the southeastern corner of New Hampshire, sits on a peninsula between the Piscataqua River and the Great Bay (See figure 5.1, next page) nestled between two cities, Portsmouth (25,800 people, 1990 Census) and Newington (797 people, 1990 Census). Since the base was established, B-47 bombers have given way to B-52s bombers and in turn were replaced by FB-111A fighter/bombers.

Figure 5.1
Pease Air Force Base Regional Map



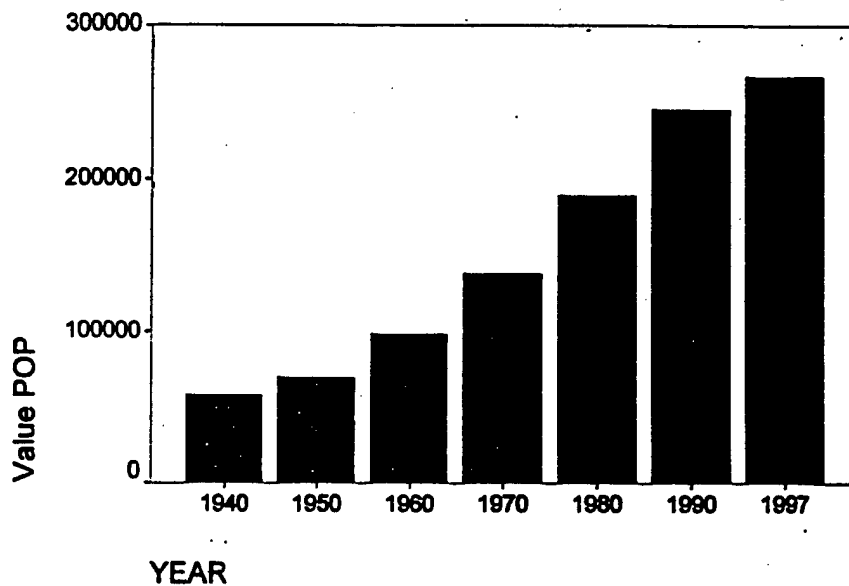
(reprinted with permission, see Appendix F)

Demographic, Economic, and Environmental Aspects

When Pease Air Force Base (PAFB) was created in 1954, the local community, specifically the small town of Newington, fought hard to prevent the base from being established. The main point of opposition to the base concerned the large amount of Newington land that the base took from the city (Rowe 1987). The base occupied "2,678 acres of Newington, or 45% of the town's total land. Nearly two thirds of the base (63%) lies within Newington municipal boundaries" (Newington Master Plan 1991, 326). In 1950, Newington had a population of 494 and Rockingham County a population of 70,059 (United States Bureau of the Census 1950). Since 1950, Rockingham's population has steadily grown. It grew to 99,029 in 1960; 138,951; 1980, 101,419; and in 1990; 245,845 (United States Bureau of the Census 1960, 1970, 1980, and 1990). This trend, including Census data for 1940 and 1997, is shown in figure 5.2. In 1990, Newington's population had risen to 797 (a 61.3% increase since 1950), representing only 0.003% of the county's population based upon 1990 numbers (Newington Master Plan 1991).

As mentioned before, Pease Air Force Base sits between the cities of Newington and Portsmouth. The undeveloped portion of the base where the wildlife refuge would eventually be established sits within the city limits of Newington (shaded area, figure 6.1). Newington was established in 1764, and by 1773, its population was 548 (Newington Master Plan 1991, 16). In 1990,

Figure 5.2
Population, Rockingham County



Newington's population was 797 people, and its projected year 2000 population is 1,069 (Newington Master Plan 1991, 42, 52). The 1980 U.S. Census depicts Newington as a more stable community than most others across the country. In fact, 53% of the population has been in their present dwelling for six years or more (1980 U.S. Census, STF3A, Table 110). The Newington Master Plan (1991) described the average Newington resident as "...more likely to be married, is better educated, has lived in town for a longer period of time, and is more likely to be a New Hampshire native" than the average New Hampshire resident (68).

Newington's median income in 1990 was \$47,010 (in 1998 dollars); the unemployment rate in 1990 was 4%, and 1990 incomes were distributed as follows: less than \$15,000 -- 42%, \$15,000-50,000 -- 54%, and greater than \$50,000 -- 3%

(Newington Master Plan 1991). The average national median income for 1990 in 1998 dollars was \$44,090, and the 1990 national average distribution was less than \$15,000 -- 15.3%, \$15,000-\$50,000 -- 50.6%, and greater than \$50,000 -- 34.1%.

Newington is in the Portsmouth-Dover-Rochester Metropolitan Statistical Area (Statistical Policy Office 1994, IV-1). Furthermore, Newington sits in an ecological region that has been described by Bailey as "hot continental." This ecoregion stretches from southern Maine to the northern tip of North Carolina and into the Ohio River Valley (Bailey 1996, 84). Newington has a New England town-hall type of government. The city of Newington does not have a city council; instead, it has selectmen. Important city issues are discussed and voted on by the citizens in periodic town hall meetings. The town's relatively low population and turnover, combined with its town-hall type of governance and long history, has created a very stable and close community.

In 1988, the area surrounding Pease Air Force Base (meaning the 16 miles of New Hampshire Atlantic coastline) was about to suffer a severe recession:

The economic conditions of the time were a very big issue. There was a big real estate recession, Pease closed, the naval shipyard was down sizing, and the five biggest banks in New Hampshire folded. The economy was terrible and this had a big impact on the reuse planning. (NGR-RG 1998, 2)

These bad economic conditions provided a significant push for rapid and extensive redevelopment of the base, "because for years and years ... there was tremendous pressure on us to develop, to develop, to develop at a time when the economy was in

the tubes and the state was struggling for money" (Reuse-SJ 1998, 7). The state and development companies entered into a growth machine-type partnership with the goal of developing as much of Pease as possible: "There were other parties who wanted to develop the same land -- the state and Bechtel, the development company hired by the PRC to come up with a reuse plan." (Reuse-TM 1998, 1, para.). In 1995, the New Hampshire seacoast began to rebound from the real estate recession of the late 1980s and early 1990s, and is currently riding the wave of economic growth that is sweeping much of the country (Reuse-PL 1998).

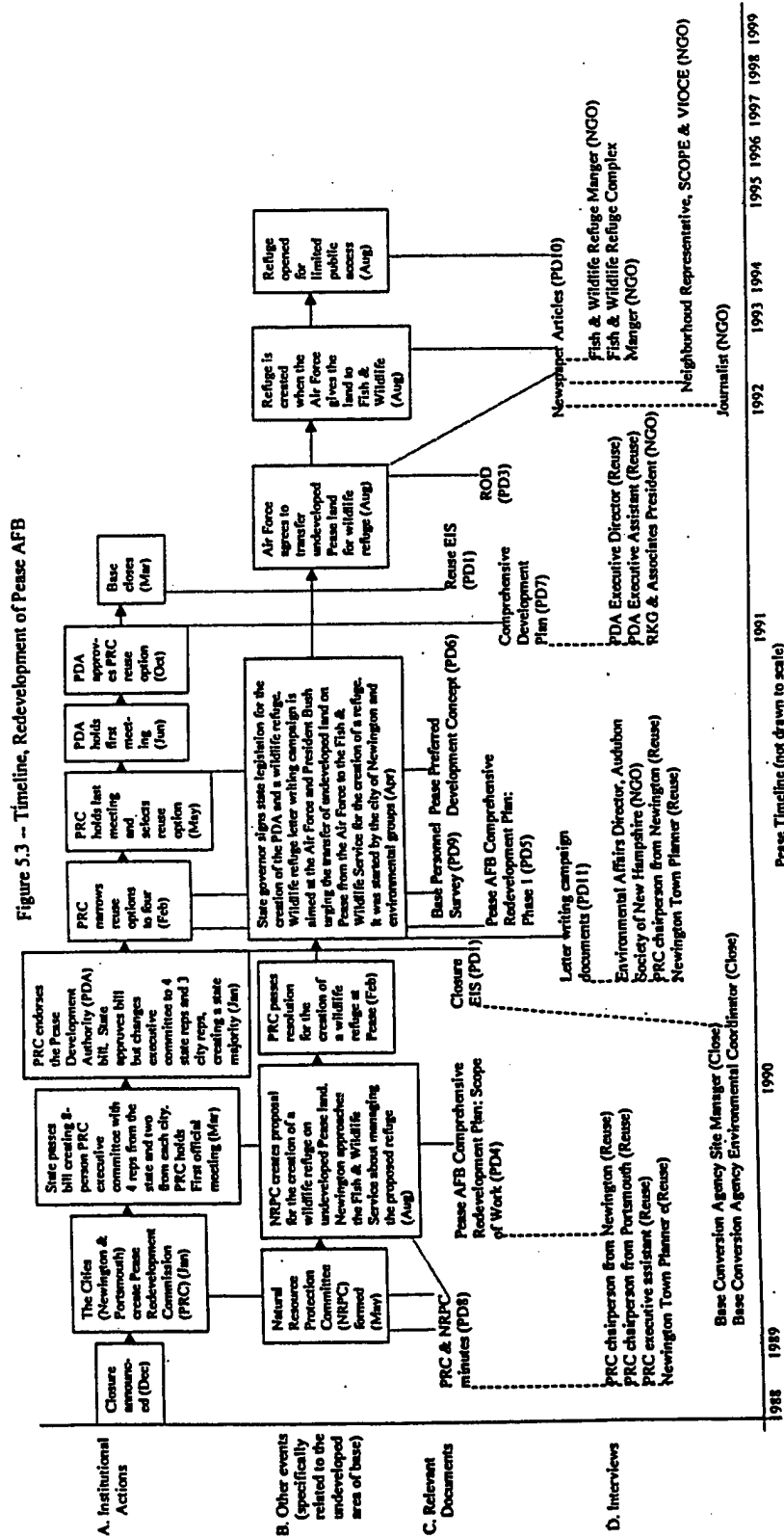
Figure 5.3 portrays the sequence of events and their relationship to key data sources in this case study. The timeline consists of two flowcharts. The top flowchart shows major institutional actions in the redevelopment of Pease. The lower flowchart shows events specifically related to the undeveloped land at Pease. Below these two flowcharts are linkages to data sources (documents and interviews).

Pease AFB Closure and Redevelopment

1988-1990

In 1988, when the base was selected for closure, it was part of the Strategic Air Command (SAC). SAC's primary mission was strategic nuclear deterrence. Accordingly, nuclear weapons may have been stored on the base in the weapons storage area (the Air Force will neither confirm nor deny this). Closure was

Figure 5.3 -- Timeline, Redevelopment of Pease AFB



announced during Christmas week, 1988. PAFB was home to the 509th Bombardment Wing that was composed of four primary flying units and over a dozen tenant units. There was also the 393rd and 715th Bombardment Squadrons and the 509th Air Refueling Squadron. Another unit, the 157th Air Refueling Group (a New Hampshire Air National Guard unit), is still on the former base. The primary military aircraft that are still stationed there (with the guard unit) are KC-135 stratotankers. The 509th, 393rd, and 715th officially left the base October 1990.

January 4, 1989, the Pease Redevelopment Commission (PRC) was formed with two representatives from the city of Newington and from the city of Portsmouth, and four state representatives. This was the main planning body that produced the base reuse plan. A few months later, subcommittees were formed, one of which, the Natural Resource Protection Advisory Committee, immediately started to investigate ways to preserve the wildlife habitat that existed around the old weapons storage area. The committee wanted to preserve this land because of its miles of undisturbed shoreline and because the Air Force had basically left this land undisturbed since the late 1950s. The governor, members of the legislature, environmental groups, and the town of Newington (Boelhower 1997, 7) supported this preservation movement.

The Natural Resource Protection Advisory Committee recommended that this land be transferred to the U.S. Fish & Wildlife Service for the establishment of a refuge. It was hoped that as a federal agency the Service would qualify for a no-cost public benefit transfer from the Air Force (Natural Resource Protection Committee 1989a, 1). The PRC completed the *Pease Air Force Base Comprehensive Redevelopment Plan, Phase 1: Preferred Development Concept* (often referred to as the Community Reuse Plan, or Reuse Plan) in May of 1990. Once this planning function was completed, the PRC disbanded and turned its planning operations over to the newly formed Pease Redevelopment Authority (PDA) on June 1, 1990.

1991-1999

The military closure team shut down the base March 31, 1991, and on that day the PDA became the primary organization responsible for the redevelopment of Pease. The PDA's job was to initiate, oversee, and encourage all necessary steps to implement the Reuse Plan. Since then, the original Environmental Baseline Survey was completed in April 1992, the Disposal and Reuse Record of Decision (ROD) signed August 20, 1991, and the Disposal and Reuse Environmental Impact Statement (EIS) finalized January 1995. During this time, a 1,095-acre wildlife

refuge was created, the Great Bay Wildlife Refuge, and the rest of the former base became an international trade port and business park. Currently, there are limited flights in and out of the airport, and many new businesses have set up operations on the remaining 1,740 acres (the other 1,267 acres are used for airport-related functions). No housing has been established on the former base, which is now considered an economic boon to the local area. The Pease International Tradeport, which is what the former base is currently called, has created 1,682 new civilian jobs (Air Force Base Conversion Agency 1999c), replacing the 400 old civilian jobs lost when the based closed.

The Great Bay in New Hampshire is a haven for shorebirds and water fowl, and the 1,095-acre Great Bay Wildlife Refuge has the only six miles of undeveloped waterfront on New Hampshire's Great Bay (NGR-KS 1998). In addition to various species of ducks, geese, herons, and egrets that regularly visit it, bald eagles are now a common sight during winter months (NGR-SV 1998). In fact, since the creation of the wildlife refuge, the number of migratory waterfowl using this land has increased ten-fold (NGR-WF 1998). In addition, hundreds of acres of forest, open fields, wetlands, and ponds support other wildlife populations such as white-tailed deer, rabbits, raccoons, opossums, various reptiles, and fish (PD1-2; PD4-7). However, there are also many buildings, bunkers, and miles of barbwire that still remain from when the Air Force used the area.

When the PRC was replaced with the PDA, the New Hampshire legislature provided for the protection of this area in the state legislation establishing the new Authority. Pease AFB was the first base in the nation to close under the Base Closure Act, and the Air Force was under pressure to set a precedent for realizing expected economic gains from base closure (Boelhower 1997, 8). Therefore, the Air Force considered selling the undeveloped land (Alison 1990). In opposition to this, there was a huge letter writing campaign organized by Newington, the Society for Preservation of New Hampshire Forests, and the Audubon Society of New Hampshire. The letter writing campaign was initiated at the local level by Newington selectmen and citizens: "...we went to schools and did the letter drive to force local public input..." (Reuse-PL 1998, 4, para.). These local community representatives then approached environmental interest groups to generate more letters and to get help for influencing the state legislature: "The Audubon Society spearheaded the environmental groups at the state level" (Reuse-PL 1998, 2, para.).

This letter writing campaign generated over 2,000 letters that were sent to President Bush and the Air Force in support of a no-cost transfer. Many of the letters had close to 50 signatures, and many were from young school children. This letter writing campaign seemed to be the straw that broke the camel's back, and the Air Force agreed to transfer the land to the U.S. Fish & Wildlife Service in August

of 1991. Then, on August 11, 1992, the Great Bay Wildlife Refuge was created.

Documents

Final Environmental Impact Statement for the Closure of Pease Air Force Base (PD1). This EIS was written and produced by the United States Air Force and Base Conversion Agency (Close respondent group), and much of what is in Pease document 2 is a reiteration of this work. This document represents the early EIS process at Pease and only looks at environmental issues related to base closure, not reuse. Being the first base of the 1988 round to close, Pease Air Force Base, blazed some of the first trails in regard to closure procedures and documentation. It is interesting to note that after this first attempt by the Air Force to write two separate EISs (one for closure and one for reuse), most other base closures wrote only one EIS combining both closure and reuse issues (as Myrtle Beach Air Force Base did). Finally, this document treated the creation of a wildlife refuge in the undeveloped area of the base as the only logical choice for that land.

Final Environmental Impact Statement for Pease Disposal and Reuse (PD2).

This was the second EIS produced by the Air Force. The National Environmental Protection Act of 1969 required the Base Conversion Agency (Close respondent group) to write an EIS. This document addressed all of the environmental aspects

related to the reuse of Pease AFB. In respect to wildlife habitat preservation issues at Pease AFB, this document also considered the creation of some type of refuge around the old weapons storage area as the only logical choice.

Record of Decision, Disposal and Reuse of Pease Air Force Base (PD3).

This Air Force (Close respondent group) document finalized the EIS process and the Reuse Plan by officially outlining the concepts the Air Force would support in the redevelopment of its former base. Without this document, the redevelopment of Pease could not legally proceed. The Department of the Air Force expressed its support for the preferred reuse alternative that was presented in Pease document 6, the international trade port. This international trade port also allowed for the creation of a wildlife refuge in the relatively undeveloped southwest corner of the

- base (around the old weapons storage area). Like PD1 and PD2, this document treated the creation of a wildlife refuge as a fact. The only point of contention was the size of the refuge (1,335 vs. 995 acres), not whether there should be one.

Pease Air Force Base Comprehensive Redevelopment Plan: Scope of Work

(PD4). This was the first stage of Pease's "reuse plan" produced by the Redevelopment Commission (Reuse group), and it presented 12 alternatives for the redevelopment of Pease:

1. Multimodal/freight transportation hub,
2. Research - education center,
3. Tourism/recreation/arts center,
4. Government center,
5. Passenger transportation hub,
6. Processing and manufacturing industrial complex,
7. Aviation service hub,
8. International trade and warehousing center,
9. Marine ecology research center,
10. Tourism, cultural arts and community center,
11. Communication center and research facility, and
12. an Industrial-residential complex. (PD4, 12-18)

Out of these twelve alternatives, all but two proposed continued use of the airport facilities (10 & 12). All but five proposed the creation of some kind of wildlife area (1, 5, 6, 7, & 10). Some of the more notable suggestions were alternatives 5, 6, 7, & 10. Alternative 5 (passenger transportation hub) would have created a large, international hub-like airport that would have built a second runway in the undeveloped area of the base that now houses the refuge. This was often referred to as the "Logan North" option (PD4, 14). Alternative 6 (processing and manufacturing industrial complex) proposed to create an industrial complex with port facilities. The port would have been placed where the wildlife refuge is currently located. The aviation service hub (alternative 7) would have also disturbed the undeveloped area with the creation of a second runway and the construction of a space shuttle support facility (for emergency shuttle landings). Finally, alternative 10 proposed the creation of a New England history village, high-tech entertainment theme park, shopping centers, and an

experimental/community/affordable housing area, to be placed in the undeveloped portion of the base that now houses the wildlife refuge. The experimental/community/affordable housing area was similar in concept to the sustainable high density city planning adopted by Portland Oregon in 1973 (Katz 1998, 1), often referred to as an urban village design concept.

Pease Air Force Base Comprehensive Redevelopment Plan: Phase 1 (PD5).

This version of the reuse plan was the next step in the redevelopment planning process and narrowed down the twelve alternatives to four options for the reuse of the former base:

- Option 1 -- A low intensity regional airport, low intensity business district, and wildlife refuge;
- Option 2 -- A high intensity regional airport, medium intensity business district, and wildlife refuge;
- Option 3 -- An industrial complex and commercial airport with wildlife refuge; and
- Option 4 -- A special use airport (international trade port), low intensity business district, and wildlife refuge. (PD5, Passim)

Each option dealt with three main areas of the base: runway (aviation related), commercial (developed but non-aviation related), and other (undeveloped areas, wetlands, and the golf course). The runway area included hangers, the control tower, flight support facilities, and the clear zones at either end of the runway. This runway area represented 1,267 acres (including the New Hampshire Air National Guard compound, adjacent to the runway) of the 4,257 acre base. The remaining area of the base that was developed but not related to aviation accounted for another

1,250 acres. The remaining 1,740 acres consisted of undeveloped land, refuge, wetlands, open space, and a golf course. All four options included the continued use of the airport facilities and the creation of a wildlife refuge in the undeveloped portion of the base. At this point in the reuse planning process, the creation and location of a refuge was no longer being questioned. The only undecided issues were refuge size and oversight responsibility.

Pease Preferred Development Concept (PD6). This was the preferred redevelopment concept chosen by the Redevelopment Commission for Pease and used in PD3. The preferred redevelopment concept was the creation of an international trade port, low intensity business district, and the creation of a migratory bird refuge to be managed by the U.S. Fish & Wildlife Service (option 4, PD5).

Pease Air Force Base Comprehensive Development Plan (PD7). This is the most current version of the Pease reuse plan, and the Pease Redevelopment Authority (Reuse respondent group) published it. This document presents a convenient overview on how the international trade port would be developed. It also outlined the design concepts for the redevelopment of the commercial area and presented the final wildlife refuge decisions in regard to its size and oversight responsibility. The size of the refuge was finalized at 1,095 acres, and the U.S. Fish & Wildlife Service was given operational responsibility for the refuge while the nearby town of Newington was given zoning authority.

Pease Redevelopment Commission and Authority minutes (PD8). This document is an array of minutes, resolutions, and reports from the Natural Resources Protection Committee (NRPC), a subcommittee of the Pease Air Force Base Redevelopment Commission (PAFBRC). Also included in this group of papers are minutes from the PAFBRC itself and the Pease Redevelopment Authority. These papers were a useful source for finding measurements related to how the Reuse respondent group thought about and viewed the local wildlife. They also helped to shed light on some of the working relationships (or lack thereof, in the case of the state and local authorities).

Base Personnel Survey (PD9). In the process of closing Pease AFB, the Redevelopment Commission (Reuse respondent group) distributed a questionnaire to 3,400 military personnel and 480 civilians; there were 1,423 military responses and 260 civilian responses. The main purpose of this survey was to assess the economic impact to the Pease area due to the loss of military personnel, military dependents, and civilian workers. This survey was performed in the fall of 1989, and the summarized results were published in the *1990 Pease Air Force Base Comprehensive Redevelopment Plan: Phase 1*.

Newspaper Articles (PD10). This document array consists of 345 articles collected from eight different journalistic (NGR) sources:

1. *The Boston Globe* -- Boston Massachusetts daily paper,
2. *The Union Leader* -- A New Hampshire state-wide newspaper,
3. *The Portsmouth Herald* -- The Portsmouth daily newspaper,
4. *The Portsmouth Press* -- A regional paper for the Great Bay area,
5. *Foster's Daily Democrat* -- Dover NH daily paper (the state capital),
6. *The Pease Report* -- A PAFBRC and Pease Development, Authority (PDA) newsletter,
7. *The New Hampshire Business Review* -- A state-wide weekly business paper, and
8. *New Hampshire Seacoast Sunday* -- A regional weekly entertainment paper.

Most of these articles came from the PDA archives, and they mostly center on the time period of Pease's closure (1988-1991). With these articles, an "abbreviated word count" was performed, where I counted the number of articles that mentioned Pease wildlife preservation issues and calculated the percentage. This provided the other side of my journalistic comparison tool.

Letter Writing Campaign Documents (PD11). This consisted of source documents and examples from the letter writing campaign to create a wildlife refuge on Pease AFB (an NGR respondent group effort). This was an excellent source for identifying environmental interest groups that were involved in the base redevelopment discussions. Additionally, these papers also helped to identify levels of local environmental activism.

Interviews

At Pease I interviewed 12 people. These interviewees are listed by their identification codes in table 5.1.

Table 5.1
Pease Interviewees

Identification Code	Position Title
P-Close-DJ	Former Base Conversion Agency Site Manager
P-Close-AD	Current Base Conversion Agency Environmental Coordinator and Site Manager
P-Reuse-SM	Executive Secretary, Pease Air Force Base Redevelopment Commission and Executive Assistant, Pease Redevelopment Authority
P-Reuse-SJ	Chairperson, Pease Air Force Base Redevelopment Commission and Pease Redevelopment Authority
P-Reuse-PL	Board member, Pease Air Force Base Redevelopment Commission and Newington Selectman
P-Reuse-TM	Town Planner, Newington NH
P-NGR-RG	President of RKG and Associates
P-NGR-CG	Business/Economic Development Editor, Seacoast Newspapers
P-NGR-PB	Chief Master Sergeant, United States Air Force, Retired
P-NGR-KS	Environmental Affairs Director, Audubon Society of New Hampshire
P-NGR-SV	Refuge Manager, Great Bay National Wildlife Refuge, U.S. Fish & Wildlife Service
P-NGR-WF	Refuge Complex Manager, U.S. Fish and Wildlife Service

All the interviews from Pease gave permission to have their names used. To keep a certain level of privacy, I only used their initials when talking about them and referencing their quotes. A complete list of interviewee names and identities is in Appendix B. Two Close, four Reuse, and six NGR group representatives were interviewed.

Close. DJ was the base civil engineer before closure. Once the base closed he became the Base Conversion Agency Site Manager. AD was the environmental coordinator for the Base Conversion Agency. At the time of my interview he was also the acting Site Manager. Just like the Myrtle Beach closure personnel, their vast experience with the base before and after closure made them excellent choices for the Close respondent group interviews.

Reuse. SM worked as an Executive Assistant for both agencies responsible for reuse planning -- the Pease Redevelopment Commission and the Pease Redevelopment Authority. In both of these positions she worked for the Executive Directors. PL was a Selectman for the Town of Newington elected by the citizens of Newington to represent their interests on the Pease Air Force Base Redevelopment Commission. TM was the Newington Town Planner who worked for PL. SJ was a chairman from the reuse committee who became an executive director for the redevelopment authority.

NGR. At the time of my interview, RG was the President of RKG and Associates, a planning, consulting, and real estate management company. His company co-wrote the Pease reuse plan. CG was the Business/Economic Development Editor for the Seacoast Newspapers. PB was a retired Chief Master Sergeant who had worked on the base as a Hazardous Waste Coordinator. He stayed in the area and became involved with some Pease environmental watchdog groups. This experience made him an excellent choice for the NGR group. KS was

the Environmental Affairs Director of the Audubon Society of New Hampshire when the base was closed. This is one of the two largest environmental groups in the state that were involved in the Pease reuse discussion. Both SV (the refuge manager) and WF (regional complex manager) worked for the U.S. Fish & Wildlife Service. This agency acted more like a NGR than either a Close or Reuse group because they acquired a portion of the base for their use, and this was not related to any redevelopment authority or military activity.

Factor Narrative

In January of 1989, when the Pease Redevelopment Commission was formed, the idea to create some type of wildlife refuge on Pease's undeveloped land was strongly promoted (Close-AD 1998, 3-4; Reuse-SJ, 3; Reuse-TM, 2; Reuse-PL, 3; Reuse-SM, 8; NGR-PB, 3, 18; NGR-SV&WF, 24; NGR-RG, 2, 3; NGR-KS, 8; NGR-CG, 3-4 -- A). Quotes for these listed references are presented in Appendix F in the same order as they appear in this chapter, and each group of quotes is denoted by a letter (i.e., the A shown above). In fact, the idea to create some kind of wildlife refuge on Pease Air Force Base once it closed was a long time dream of Newington's city planner: "...it was published in Newington's Pease plan nine months before closure was announced -- that Newington was committed to preserving a wildlife refuge of some 1,365 acres west of McIntyre Road on Pease

AFB" (PD10-*The Pease Report* 1990a, 3). The same city planner commented on how quickly Newington brought up the issue of a wildlife refuge:

...we had an idea ready to go. When the PRC was founded, we immediately pushed for the creation of the Natural Resource Protection Committee and an Environmental Committee. The state was useless; it was us against the vacuum. Newington was the only party who had a plan.
(Reuse-TM 1998, 2)

This was not to say that other options weren't considered by the Pease Redevelopment Commission:

In regard to preserving the wildlife area, there were other parties who wanted the same land, the state and Bechtel -- the development company hired by the PRC to come up with the reuse plan. It was high-end homes versus wildlife on six miles of shoreline. They also wanted Disneyland North. (Reuse-TM 1998, 1)

Other (non-Newington) PRC members also echoed this view that the undeveloped base land could have been used for something else besides a wildlife refuge: "I don't think the city of Portsmouth could have cared less about that wildlife preservation to be honest with you" (Reuse-SJ 1998, 18). These options were eventually declined and the plan to create a wildlife refuge out of the undeveloped land at Pease, to be managed by the U.S. Fish & Wildlife Service was chosen: "We were successful and beat the developers and the state because of a grassroots

movement, and we were the first out of the gate; we had the advantage of being able to operate in a vacuum" (Reuse-TM 1998, 1).

As can be seen, the concept of creating a wildlife refuge on the former Pease AFB was brought into the discussion early and presented with force. Evidence of this can also be found in most of the documents:

PORTSMOUTH -- Great and serious questions remain about what will become of Pease AFB after the January 1991 military pull-out, but two factors seem more and more certain: that the N.H. Air National Guard will be a vital component of any reuse plan; and that some portion of the 4,300-acre base will be preserved as conservation land.
(PD10-Breneman 1989a, 1A)

Quotes from other documents also support this view.¹ This shows how the creation of a wildlife refuge on Pease was quickly presented as the only sensible alternative for the undeveloped land.

Demographic and Geographic Characteristics

1988-1990. The former base is located in Rockingham County in the southeastern corner of New Hampshire (see figure 6.1). It sits on a peninsula between the Piscataqua River and the Great Bay and is also nestled between two cities, Portsmouth (25,800 people, 1990) and Newington (797 people, 1990). The undeveloped portion of the base where the wildlife refuge would eventually be established sits within the city limits of Newington (shaded area, figure 6.1). Newington is in the Portsmouth-Dover-Rochester Metropolitan Statistical Area

(Statistical Policy Office 1994, IV-1). This city also sits in an ecological region that has been described by Bailey as "hot continental." This ecoregion stretches from southern Maine to the northern tip of North Carolina and into the Ohio River Valley (Bailey 1996, 84).

The environmental groups and the U.S. Fish & Wildlife Service seemed to have become involved with trying to create the wildlife refuge because of Newington's strong community support for a refuge and the perceived uniqueness of the land. All of the respondents saw the undeveloped land at Pease as unique, and six respondents thought it was worth preserving, mainly because it was undeveloped, unlike most of the land around the base (Close-AD 1998, 1-2; Close-DJ 1998, 2; Reuse-TM, 1; NGR-SV&WF, 9; NGR-KS, 1 -- B).

1991-1999. This view of the land at Pease being unique because it was undeveloped was a view that continued to be held long after the reuse planning was done. However, the local neighborhood representative summed up other stated reasons for environmental group and U.S. Fish & Wildlife Service involvement:

Well, I think when you compare other bases to Pease, you have to really look at the geographic location. Like I said before, here you have this piece of land that juts out into Great Bay with water surrounding it on one side, a road that cuts it square in half, cuts it off from the base proper and a small community that really is so small you can get a consensus of what people want very easily. (NGR-PB 1998, 19)

Therefore, some of the unique geographical features of the land, such as the six miles of shoreline on the great bay, may also have encouraged the involvement of environmental interest groups.

Pease was slightly larger and had fewer civilians working on it than the average base selected for closure in 1988 and 1991 (see table 2.1 and 2.3). Pease's ecoregion classification as a hot continental ecoregion seemed to have had little impact on the perceived uniqueness of base wildlife habitat. While Pease has a previously listed federal threatened species that occasionally crosses base property (the American Bald Eagle), this species does not nest on the base (PD1).

Local Community Wealth

1988-1990. In 1988, the area surrounding Pease (meaning the 16 miles of New Hampshire Atlantic coastline communities) was about to suffer a severe recession:

The economic conditions at the time were a very big issue. There was a big real estate recession, Pease closed, the Naval shipyard was down sizing, and the five biggest banks in New Hampshire folded. The economy was terrible and this had a big impact on the reuse planning. (NGR-RG 1998, 2)

New Hampshire's poor economy in 1990 was not uncommon for the time; much of the country was experiencing a downturn in the real estate market.

These bad economic conditions provided a significant push for rapid and extensive redevelopment of the base "... because for years and years ... there was

tremendous pressure on us to develop, to develop, to develop at a time when the economy was in the tubes and the state was struggling for money" (Reuse-SJ 1998, 7). The state and development companies entered into a growth machine-type partnership with the goal of developing as much of Pease as possible: "There were other parties who wanted to develop the same land -- the state and Bechtel, the development company hired by the PRC to come up with a reuse plan." (Reuse-TM 1998, 1, para.).

During this time, the median income for Newington (in 1998 dollars) was \$47,010. In 1990, income in Newington was distributed as follows: less than \$15,000 -- 42%, \$15,000-\$50,000 -- 54%, and greater than \$50,000 -- 4%. The national average median income for 1990 was \$44,090 (in 1998 dollars) while the national distribution was \$15,000 -- 15.3%, \$15,000-50,000 -- 50.6%, and greater than \$50,000 -- 34.1% (*Economic Report of the President* 1999, 366; U.S. Department of Commerce 1994, 469).

Newington's median income was higher than the national average; however, Newington had a larger percentage of households making less than \$50,000 (96%) when compared to the national average (65.9%). This points towards a relatively wealthy few living in Newington, yet, the high median income also points toward more of the existing wealth trickling down to the average person. Nevertheless, the interviewees themselves did not bring up the issues of local community wealth being an important factor in the creation of the wildlife refuge.

1991-1999. In 1991, the local economy was still bad, and 400 civilian jobs were lost when the base closed. "The biggest influence over the reuse planning wasn't regulations but the market conditions. Our goal was to find a way to produce better economic conditions and to create good paying jobs" (NGR-RG 1998, 2). Other interviewees also talked about the bad economy being a large driving force for the type of development that the PDA tried to implement (Reuse-SJ 1998, 2, 7, 15-16; Reuse-TM, 1; Reuse-PL, 3; Reuse-SM, 4, 14; NGR-KS, 13; NGR-CG, 3 -- C). Then, in 1995, the New Hampshire seacoast began to rebound from the real estate recession of the late 1980s and early 1990s, and it is now riding the wave of economic growth that is sweeping much of the country.

Administrative Context and Processes

1988-1990. Five respondents thought that overall government relationships were excellent, and three thought they were about average. The only poor governmental relationships seemed to be between state and local municipalities. In fact, six of the respondents described state and local governmental relationships (IGRs) as bad (Close-AD 1998, 3; Close-DJ, 5; Reuse-SJ, 1-2, 29-30; Reuse-SM, 17; Reuse-PL, 2; NGR-PB, 6 -- D). In contrast, most of the interviewees had something good to say about their experience with federal agencies -- the Air Force and U.S. Fish & Wildlife Service in particular (Close-AD 1998, 4, 5; Close-DJ, 3-4; Reuse-SJ, 11-12, Reuse-SM, 3; NGR-SV&WF, 13, 16, 18; NGR-KS, 2-3; NGR-

CG, 4 -- E). The Environmental Coordinator for the Pease Base Conversion

Agency described IGRs from the federal point of view:

So the question was, was the working relationship between the Air Force and the local redevelopment authority and the communities a good relationship -- the answer is yes. But there was a conflict between local communities and redevelopment authorities; the Air Force tried to stay out of it. (Close-AD 1998, 3)

In a similar manner, the Newington Town Planner also did a good job of summing up IGRs from Newington's point of view:

The Fish & Wildlife folks and us [meaning Newington] got along just fine. They wanted the land, and we wanted them. Our relations with the military were so-so. However, the Department of Defense and the State got along just fine. Newington and Portsmouth did not get along with the state at all. (Reuse-TM 1998, 1, para.)

Additionally, several of the respondents commented on how early IGRs were strained because this type of planning function, with so many players, had never been attempted before. The President of RKG and Associates put it as follows: "At first, all working relationships were strained; that's what happens in a creative process like the PRC" (NGR-RG 1998, 1).

Finally, governmental regulations were seen as an implementation issue and not a driving force in base reuse planning and redevelopment: "It wasn't regulations that affected the reuse ... the biggest point is how that [NEPA] gets

implemented..." (Close-AD 1998, 11). Other interviewees also supported this view (Reuse-SM 1998, 10; NGR-RG, 2; NGR-KS, 12; NGR-CG, 20 -- F).

1991-1999. How did IGRs change over time, specifically when the Redevelopment Commission became the Redevelopment Authority (PDA)? In the summer of 1990, the PRC disbanded, and the PDA took over base reuse planning responsibilities. The State had four executive committee members, and the local cities had three. The PRC's six sub-committees were modified, and their membership changed from locally appointed volunteers to PDA executive committee members and their staff (Reuse-PL&TM 1998; Reuse-SM). These changes created a state majority. The executive director for the PDA was very proud of this:

Well, let's just say that I hope that from my standpoint that the state dominated them. At least I tried.... So did we dominate? Yes. Somebody has to take charge. You can't have a community on hand that doesn't want any development when you're trying to develop a piece of property....If we were dominant, and I think we were, it's why Pease is where it is today. Because we took charge.... And we had four state members on that PDA. And they were not slouches. We had guys who were retired executives from large companies. We had some guys who were in the real estate business in Rochester. I mean we had some good quality businessmen.... Not a NIMBY approach and not, what's best for my little 800 people in the town of Newington. (Reuse-SJ 1998, 18)

As can be expected, local community representatives were not very happy with this new arrangement, especially Newington:

The PDA is a seven person board, four state reps and three local reps, and the sub-committees are only made up of board members. These sub-committees are also advisory in nature. They did this because they had a close call with democracy, and they felt more comfy with the autocratic model. (Reuse-PL&TM, 3)

Nevertheless, Newington seemed to be very gracious about way the PDA was organized; they got their wildlife refuge, and this seemed to satisfy them: "We were successful and beat the developers and the state..." (Reuse-TM 1998, 1, para.). They credited their successful creation of a wildlife refuge to three things -- the letter writing campaign, getting the U.S. Fish & Wildlife Service on their side, and being the first out of the gate with a reuse idea:

No, the state didn't want public participation. That's why we went to school and the letter drive.... We really worked at getting the Fish & Wildlife Agency on our side; we even gave them a free office to put their field operators in.... You see, the state was slow and careless when this planning process started. Newington had a plan before the base was even closed. (Reuse-PL 1998, 3, para.).

In April of 1990, when then Governor Judd Gregg signed state legislation supporting the establishment of a wildlife refuge on Pease to be managed by the U.S. Fish & Wildlife Service, their approach seemed to work. Finally, \$20,144,413 (in 1998 dollars) were made available by the federal government for Pease reuse planning and redevelopment. As of 1995, this was the third highest level of funding

made available for reuse planning and redevelopment for 17 major Air Force closure bases surveyed by the Government Accounting Office (see table 2.2).

Environmental Ethical Concern and Activism

1988-1990. Newington was the main player in the base reuse discussion since the area of undeveloped land that was in question would be under their jurisdiction once the base closed. The Newington selectmen pushed hard for the creation of the Natural Resource Protection Committee, and the city zoned the undeveloped base land for wildlife conservation. In fact, the city even went so far as to provide the U.S. Fish & Wildlife Service with a free building for their personnel. For example:

Strong public support for the establishment of a wildlife refuge in the proposal area was expressed at public meetings, at the March 1989 annual Town Meeting [Newington], and in local opinion polls. A 1989 poll of Newington residents [done by a local paper] revealed that 81% favored the designation of land west of McIntyre Road as a conservation area.

(PD8-Natural Resource Protection Committee 1989b, 2)

Only 28% of the newspaper poll respondents wanted heavy development on the former base. This poll also surveyed people in 10 other New Hampshire seacoast communities besides Newington: Portsmouth, Greenland, Durham, Rye, Dover, New Market, Stratham, Madbury, New Castle, and York. It also surveyed

individuals in three nearby Maine communities: Eliot, Kittery, and South Berwick (PD10-Schrier 1989, 1A).

The Natural Resource Protection Committee's main job was to investigate ways to preserve Pease wildlife habitat (as the name implies). They met often (usually twice a month), published their minutes, passed resolutions, and created a proposal to establish a wildlife refuge to be managed by the U.S. Fish & Wildlife Service. This proposal was later approved by the PRC and sent to the state legislature. It then became the key ingredient, along with the letter writing campaign, for the creation of a wildlife refuge (PD8-Natural Resource Protection Committee 1989b, Passim).

There were many references to wildlife surveys that were performed for the closure in general (PD1-7) and for the wildlife refuge in particular (documents 8 and 10). For example, the Final EIS for the Pease closure and reuse stated:

Approximately 600 public comments were received on the DEIS [Draft EIS for closure and reuse]. The Air Force has responded to all comments received during the 45-day public review period. Based upon these comments, additional field surveys and analyses were initiated. (PD3, S-4)

As shown above, the public expressed concern about base wildlife, and in response, the Air Force promised to conduct additional surveys. In fact, out of 600 comments, 16 concerned the wildlife refuge (3%). Many of these comments treated the creation of a wildlife refuge as a fact: "...the wildlife refuge which everyone agrees

on..." (PD2, comment 160). Additionally, the public comment section of the reuse plan that covered three public meetings containing 494 comments from 41 people had 22 comments relating to Pease wildlife (4.5%). These comments also treated the wildlife refuge as a forgone conclusion: "I'm pleased that a wildlife refuge is planned" (PD7, Appendix A).

In PD1-7 there are references to five environmental surveys performed for the closure of Pease. Two of these surveys were plant and habitat surveys performed by a local botanist: one was a wetlands survey done by the Air Force, and one was a baseline wildlife survey done for closure, and a team from the New Hampshire Heritage Program performed a federal and state threatened and endangered species survey. In regard to the wildlife refuge itself, there are references (in documents 8 & 10) to a wildlife survey that the U.S. Fish & Wildlife Service did on the refuge land before acquiring it.

In PD1-8 there was plenty of evidence suggesting that both the Air Force and the redevelopment commission defined wildlife habitat separate from open space. For example, in the final EIS (PD2) when the parcels were described by type and acreage, 1,075 acres received the title "Wildlife Refuge," and 275 acres were described as "Open Space," with an additional 280 acres as "Office/R&D, Open Space" (PD2, 2-2). The *Pease Air Force Comprehensive Development Plan* (PD7) stated that there "...are about 1,100 acres of wildlife area proposed as well as some 545 acres of open space/undeveloped area" (PD7, A-13). In this and other reuse

planning documents there were many similar comments, along with tables showing this acreage (PD6, A-12, A-20, and S-4). Statements like this from the PRC and PDA helped to reinforce the view that wildlife habitat and open space were two different things.

In regard to environmental ethical concern, there was a great deal of evidence that the local community was very worried about wildlife issues at Pease (outside of the public comments on the EIS and reuse plans as already mentioned). In the 345 newspaper articles that I collected, 66 were wildlife related (19%). Many of these articles were front-page stories with titles such as:

- "Gregg [Governor] wants land transfer for Pease wildlife refuge" (PD10-*Foster's Daily Democrat* 1990, A1),
- "Locals stand up for Pease refuge" (PD10-Nathan 1991, A1), and
- "Pease wildlife supporters urged to contact Bush" (PD10-Breneman 1990, A1).

In reference to the last article listed above, a letter writing campaign for the creation of a wildlife refuge at Pease was organized and initiated by local residents, state citizens, and environmental groups. This letter writing campaign generated 2,150 letters addressed to President Bush and the Secretary of Defense urging the creation of a wildlife refuge at Pease. Some of these letters had multiple signatures (up to 50); some were from important individuals (such as U.S. Congressional representatives) while many were from young school children.

Additionally, the letters in this campaign expressed a biocentric view, in regard to Pease wildlife. Furthermore, most of the interviewees seemed to view wildlife in the same manner. As would be expected, the U.S. Fish & Wildlife Service officers talked about steps needed to ensure wildlife habitat for wildlife: "I think I agree completely with [SV] when she says, 'if wildlife is your only concern, then your best bet is to have just the habitat, no people.' That's the way to go." (NGR-WF 1998, 31). A local neighborhood representative also echoed this view: "And they have very specific reasons why they make it a refuge. Just the name implies, refuge. It's a refuge for animals, and they keep people out of there." (NGR-PB 1998, 4). Others in the Close and Reuse groups also presented this biocentric view (Close-AD 1998, 2; Close-DJ, 2; Reuse-PL, 3; Reuse-TM, 1 -- G). The minority that demonstrated an anthropocentric view of wildlife expressed their displeasure with the refuge by commenting on the lack of ecological uniqueness of the land: "...same kind of trees, the same kind of rocks, and the same kind of birds" (NGR-RG 1998, 1). Others commented on how it should have become a state park and not a U.S. Fish & Wildlife refuge: "And it's the worst use of land I've ever -- it's not the worst use of land; it's the worst abuse of land by the federal government to allow that place to stay closed out there and not let people go through it" (Reuse-SJ 1998, 2-3). Nevertheless, the majority of the interviewees saw the wildlife worth preserving for its own sake, demonstrating a relatively high level of environmental ethical concern and specific interest in wildlife preservation.

There were 18 environmental groups that officially endorsed the wildlife refuge at Pease:

Table 5.2
Pease Environmental Groups

<u>Environmental Group</u>	<u>Type</u>
Great Bay Estuarine System Conservation Trust	Local
Rockingham County Conservation District	Local
Rockingham Planning Commission	Local
Stafford County Conservation District	Local
Audubon Society of New Hampshire	State
New Hampshire Sierra Club	State
New Hampshire Coastal Alliance	State
New Hampshire Waterfowl Association	State
New Hampshire Wildlife Federation	State
Society for the Protection of New Hampshire Forests	State
Appalachian Mountain Club	Regional
Maine Audubon Society	Regional
Massachusetts Audubon Society	Regional
Strafford Regional Planning Commission	Regional
Strafford Rivers Conservancy	Regional
International Wild Waterfowl Association	National
League of Conservation Voters	National
The Nature Conservancy (A Big Ten group)	National

As can be seen, there were many environmental groups involved in the drive to create a wildlife refuge at Pease. Most of these groups were local, state, or regional; there was only one group from the Big Ten. So it seems that having a national level environmental group was not as important as having local, state, and regional groups -- especially if these groups are the most powerful ones in the state. For example, the Audubon Society of New Hampshire (separate from the National Audubon Society) and the Society for the Protection of New Hampshire Forests are the two largest (10,000 or more members each) and most powerful environmental

groups in the state of New Hampshire (NGR-KS 1998). Why did these environmental groups become involved in the Pease reuse discussion? Their involvement seems to have been related to three main issues: the high environmental activism of the local community (mainly Newington), the local community's willingness to get involved in local political issues (mainly Newington), and the perceived uniqueness of the undeveloped land on Pease (see Demographic and Geographic Characteristics section).

1991-1999. The willingness of local citizens to participate in local political issues led to the rapid creation of a preservation coalition that successfully challenged growth proponents and created a wildlife refuge at Pease. This preservation coalition consisted of Newington selectmen that were on the redevelopment commission, local citizens (mainly from Newington), and the 18 environmental interest groups listed in table 5.2. It was this coalition that pushed for the creation of a wildlife refuge on Pease. Once this wildlife refuge was created, this same coalition then went on to successfully champion other environmental causes such as reducing air and auto traffic to improve air quality at the former base:

... it certainly had to do with air quality. That was one of the issues. And the seacoast area of New Hampshire is one of the pieces of the state that is not in compliance currently with the EPA's air quality regulation. So to make traffic even more intense in an area would presumably not contribute to making the air quality better. I would make it worse.... and therefore the land use planning and planning for use of the base should take that into account and not make it worse. (NGR-KS 1998, 2)

This is what happened; the preservation coalition successfully campaigned to get a lower amount of air traffic: "...they didn't want the airport part of it. I mean they sued the PDA ... won their case, and we weren't going to be able to use the airport [like we wanted to]. So that was a tremendous restriction" (Reuse-SJ 1998, 10).

In response to interview question number ten, eight of the respondents classified Newington environmental activism as high, one as moderate, and one as low. The Reuse and NGR groups mainly classified Newington's environmental activism as high (Reuse-SM 1998, 7; NGR-PB, 11; NGR-WF, 16, 25, 26; NGR-KS, 9; NGR-CG, 9, 13 -- H). A selectman that was on the PRC commented on this environmental activism and related issues:

We had an economic slump during 1990. The economy was bad during 1991-1995, but ... The slump did not affect wildlife issues at Pease -- this preservation was seen as irreplaceable. This was seen as preservation, not recreation. The local community [meaning Newington] wanted this preservation to happen -- the town meeting in New England is the purest form of government. This was seen as something that would be kept for future generations. (Reuse-PL 1998, 3, para.)

Those who thought that environmental activism was moderate pointed to what they saw as a vocal minority: "So, there was a vocal group that pushed that. Now whether that was truly representative, a total cross-section of the community, probably not" (Close-AD 1998, 7). This same individual also stated wildlife

preservation was not the actual goal but was really a means to an end for Newington to preserve its quality of life:

Yeah. But the bald eagle may have helped to some degree, you know. It becomes a supportive argument but not necessarily the prominent, dominant argument. But it would be the rationale for having a wildlife refuge ... although they won't say it, because they didn't want the development. So in order not to have development, let's have a wildlife refuge, to put it bluntly. (Close-AD 1998, 13)

Those who thought environmental activism was low also echoed this view. "They were more concerned about getting 1,200 acres of land in their backyard that wasn't going to be developed" (Reuse-SJ 1998, 19). The interview responses were more divided when asked about the connection between land use planning and wildlife conditions -- a strong connection five responses, a weak connection three responses. Much like the question on environmental activism, most of the NGRs thought the connection was strong (NGR-SV&WF 1998, 22-23; NGR-KS, 8; NGR-CG, 13 -- I) while the Close group thought it was weak (Close-DJ 1998, 7-8 -- J); the Reuse group was divided between strong (Reuse-TM 1998, 2 -- K) and weak (Reuse-SM 1998, 6 -- L).

Public Participation

1988-1990. When the interviewees were asked to explain their characterization of Newington's environmental activism, the comments also

centered on Newington's willingness to participate in the local political planning process. The President of RKG and Associates, who wanted to put "high-end residential, offices, and marina" on this land, was very unhappy with the refuge: "...from a business standpoint, it makes no sense" (NGR-RG 1998, 2, 3). Still, this pro-growth individual had a grudging respect for Newington unity and organizational ability in creating the refuge: "They are the biggest bunch of contrary people you will ever meet, but on this issue of a wildlife refuge, they were very united" (NGR-RG 1998, 3). The former executive director for the PDA (who was also a former state appointed PRC executive committee member) was another pro-development person in regard to Pease: "Well that's beautiful land out there, right on the bay. It could have been developed into any number of things. It could have been developed into some gorgeous condominiums" (Reuse-SJ 1998, 4). This individual also had a grudging respect for Newington's ability to resist development:

Newington. So here's a town who really doesn't -- they fought the air base 30 years ago when they put it in; they never wanted it there to begin with, and they didn't want anything there afterwards. So consequently, those planes that were taking off right over their heads for 30 years, this was an opportunity for them to say, 'great, we don't want anymore airplanes.' (Reuse-SJ 1998, 1).

The local journalist confirmed Newington's ability to get their issues heard: "Well, Newington only has 800 people; they can be very vocal people" (NGR-CG 1998, 26).

This local political activity may have been related to Newington's culture and town hall type of government: "...sort of New Hampshire and New England history and culture perhaps that would lead towards a refuge" (NGR-KS 1998, 14). Newington's high level of political action in regard to creating a wildlife refuge was a recurring theme throughout the respondent groups (Close-AD 1998, 14; Reuse-SJ, 19, 25; Reuse-PL 1998, 3; Reuse-SM, 14; NGR-PB, 3, 9, 11, 12, 20; NGR-KS, 15; NGR-CG, 8, 26; NGR-SV&WF, 16, 19, 20, 23, 25, 26; NGR-RG, 1, 2 -- M). The number and activity of local special interest groups that mobilized and formed to monitor the redevelopment of Pease provides further evidence of the willingness to participate in local political action:

We were looking at the redevelopment of Pease from a different angle than the state was. We did not want to see it developed to the extent that they did.... For instance, where the PDA wanted to build an 18-gate terminal, Maine/New Hampshire Voice was saying, we don't think that's going to work. A matter of fact, we threw yard sales and different fundraisers, raised five thousand dollars and did our own study, had our own study done on the development of Pease.... We didn't think the demographics were here to support passenger service where you would have 18 gates. We thought more like on the lines of 6 gates, 5 gates... (NGR-PB 1998, 8)

Six local groups became Pease "watch dog groups." The most important and vocal one was Seacoast Citizens Overseeing Pease Environment (SCOPE) which, as the name implies, was mainly concerned with cleaning up the base. Another group was

the Pease Redevelopment Research Committee, a small informal group of Newington and Portsmouth residents who were mainly concerned with Pease redevelopment issues. The third most important group was the local chapter of Maine/New Hampshire Voice, which was a newspaper-sponsored voters forum that ended up paying particular attention to Pease redevelopment issues. The three other groups that also behaved as Pease watchdog groups were the Sherburne Civic Association, the New Hampshire Coastal Alliance, and the Pease Regional Planning Workshop (PD10-*The Pease Report* 1990b, 5).

The above willingness of local citizens to participate in local political issues led to the rapid creation of a preservation coalition that successfully challenged growth proponents:

Bechtel and the state were partners, wanting to develop the hell out of Pease. We stopped this by our letter writing campaign and the incompetence of Bechtel and the state. Our mobilization of the local community was the greater power. (Reuse-PL 1998, 2, para.)

This preservation coalition consisted of Newington selectmen that were on the redevelopment commission, local citizens (mainly from Newington), and the 18 environmental interest groups listed in table 5.2. The executive secretary for the PDA summed it up quite well:

So our early board of directors [PRC executive committee] had an uphill battle. It was an extremely difficult thing. One, because we were the first. Two, because you had communities here operating under a set of laws and town legislation and small town meetings and things like that, which is the character of New Hampshire, but capable of giving these municipalities enough power to rattle some cages for their own development issues. Okay? (Reuse-SM 1998, 14)

Therefore, Newington's strong democratic features provided an avenue for the local community's environmental activism to impact local land use planning, even in the presence of a motivated growth machine.

The growth machine at Pease consisted of state officials and the international development company Bechtel. State officials were attempting to use the redevelopment of Pease as an engine for state economic revitalization (Reuse-SJ 1998; NGR-CG); Bechtel was looking at the possibility of creating a theme park, which the local community was against: "Whenever Bechtel Corp. brings up the idea of building a tourism theme park at Pease Air Force Base, the reaction among local planners seems to be uniformly negative" (Schultz 1998, 1). In fact, local residents were so upset about Bechtel being chosen to write the comprehensive base reuse plan that one of the watch dog groups, the Redevelopment Research Committee, sponsored a free talk by Laton McCartney, who wrote the book *Friends in high places: The Bechtel story*, a critical examination of Bechtel (*Foster's Daily*

Democrat 1990). The book tracks the company's 80-year history and its notorious political connections. This distrust of remote government officials and non-local businesses was one of the reasons for the letter writing camping: "Bechtel and the state were partners, wanting to develop the hell out of Pease. We stopped this by our letter writing campaign and the incompetence of Bechtel and the state" (Reuse-PL 1998, 2, para.).

Furthermore, there was disagreement among the PRC members as to whether there should have been a wildlife refuge on Pease. The PRC (specifically executive committee) was made up of two selectmen from Newington, the Portsmouth Mayor and councilman, and four state appointees. These were elite individuals: "There were no common Joes in decision-making positions; all the members of the eight-person PRC were political appointees by the state and two cities" (Reuse-PL 1998, 3, para.). The Newington representatives really wanted a wildlife refuge, pushed hard for it, and eventually got it. This disagreement among the elite members of the PRC brings up the issue of elite solidarity as expressed by Tarrow (1994). Tarrow suggests that change has a greater chance of occurring when there is disagreement among the controlling elite; otherwise, the status quo will remain the same no matter how hard the non-elite tries to change it. In this case the status quo would have been more development as desired by the growth

machine. Additionally, two of the interview respondents thought that the PRC openly received and addressed public comments, and two thought that public comments were not openly received.

The PRC subcommittees (described simply as committees) were created three months after the PRC formed and were made up of appointed volunteers. Newington (and Portsmouth) put out ads in the local newspapers asking for committee volunteers. Many, many people volunteered: "Redevelopment Commission [was] swamped with nominations ... received well over 100 nominations and applications..." (PD10-Breneman 1989b, A3). Once all the names were collected, a Newington selectman and Portsmouth councilman appointed committee members. There were 48 people selected to participate in six committees:

1. Economic Development Committee,
2. Environmental Clean-up Committee,
3. Natural Resource Protection Committee,
4. Airport Study Committee,
5. Facilities Committee, and.
6. Government Relations.

While all of the respondents thought that there were no ordinary people in reuse decision-making positions (i.e., on the executive committee of the Commission), all of the respondents stated the belief that the committees had ordinary (non-elite) individuals and that these committees had some influence on the PRC executive committee: "...the committees were almost entirely made up of local citizens.... These committees were advisory in nature" (Reuse-PL 1998, 3, para.). This influence may have been more pronounced at Pease because of the disagreement between executive committee members.

In regard to public participation, local Pease citizens seemed to have been very involved in Pease's reuse planning process, as evidenced by the public comments on the draft EIS and reuse plan, 600 and 494 respectfully. Additionally, 19% of the Pease-related newspaper articles dealt with wildlife issues. Therefore, local citizens who seemed to have a high degree of environmental activism made sure that the PRC was aware of their desire to create a wildlife refuge, mainly through the letter writing campaign, the creation of an advisory subcommittee to the reuse commission, and newspaper editorials.

1991-1999. Out of the interview responses, three characterized the Redevelopment Commission as moderately open (Close-AD 1998, 8; NGR-PB 5; NGR-KS 3, 10, 11, 12; NGR-CG, 19 -- N), four as very open (Close-DJ 1998, 2; Reuse-SM, 9; NGR-RG, 2 -- O), and the remaining three as not open at all (Reuse-PL 1998, 2, 3 -- P). In other words, seven of the interview responses characterized

the PRC as very to moderately open. When the interviewees thought the reuse planning was not open to the public, it seemed to be centered on the state's attempt to heavily develop the base: "...the state and Bechtel, they were not responsive; they didn't want to be responsive to the local public. They were looking out for their own interest -- hardcore development unhindered by citizen input" (Reuse-PL 1998, 3). Similarly, seven respondents described the reuse planning process as fair (Close-DJ 1998, 11; Reuse-SJ, 23; Reuse-TM, 2; Reuse-SM, 8-9; NGR-RG, 2; NGR-PB, 14; NGR-KS, 8; NGR-CG, 15 -- Q), and eight respondents thought good decisions were made (Close-AD 1998, 10-11; Reuse-SJ, 10-11, 26; Reuse-SM, 9; NGR-RG, 1-2; NGR-KS, 3, 10 -- R). Finally, six respondents described the reuse planning process as a democratic one, where everybody got their say if not their way: "Yes, it was a very democratic process. I didn't like all the conclusions, but that's democracy" (NGR-RG 1998, 2).

In the summer of 1990, the PRC disbanded, and the PDA took over base reuse planning responsibilities. The PDA continued the elite tradition. Its initial executive committee consisted of a longtime friend of the governor who was the former chief executive of Sprague Energy, Inc.; an administrative director of the Henley Group, one of the state's most influential corporations; the Vice Chairman of the Business & Industry Association of New Hampshire; the CEO of Rochester-based Kendall Insurance company; a Newington representative; a Portsmouth councilman; and a law partner from Portsmouth law firm of Loughlin & Wade (the

joint Newington and Portsmouth representative). The State had four executive committee members, and the local cities had three. The PRC's six sub-committees were modified, and their membership changed from locally appointed volunteers to PDA executive committee members and their staff (Reuse-PL&TM 1998; Reuse-SM).

Wildlife Status

In August of 1991, the Air Force agreed to transfer around 1,000 acres of undeveloped Pease land to the U.S. Fish & Wildlife Service for the creation of a Wildlife Refuge; one year later the transfer took place (see shaded area figure 5.1). In 1994, the refuge was opened to the public, and in 1995, the refuge was officially designated a National Wildlife Refuge (PD10-Jacques 1995, A1). This refuge is the fourth national refuge in New Hampshire and the first one on the coast, or the Great Bay to be more exact (PD10-Jacques 1995, A1). In regard to current wildlife conditions, eight interviewees thought they were better (Close-AD 1998, 1; Reuse-SJ, 8; Reuse-TM, 1; Reuse-SM, 13; NGR-SV&WF, 7, 30; NGR-CG, 1 -- S), four (33.3%) thought they were about the same (NGR-PB 1; NGR-KS, 1 -- T), and none thought they were worse. The U.S. Fish & Wildlife Service has conducted periodic informal bird counts showing that the number of migratory waterfowl that are using the refuge has increased ten-fold (NGR-WF 1998, 1). Overall, seven of the

respondents also thought that the amount of wildlife habitat being preserved was the same as or more than when the Air Force managed the area (Reuse-TM 1998, 1; Reuse-SM, 1; NGR-PB, 1; NGR-SV&WF, 8-9 -- U). Wildlife populations on the undeveloped portion of the base now seem to be better off.

Factor Model

There was a powerful clash between a strong preservation coalition consisting of Newington selectmen, its citizens, and environmental groups against a strong growth machine consisting of state government officials and outside developers: "There were other parties who wanted to develop the same land -- the state and Bechtel, the development company hired by the PRC..." (Reuse-TM 1998, 1, para.). Both sides of this struggle recognized it for what it was, clearly understanding who stood in what camp (Reuse-PL 1998, 2, 3; Reuse-SJ, 18, 21, 22-23, 29-30 -- V). In the end, due to a well-organized and implemented campaign, the preservation coalition was able to get the Air Force to hand the property directly over to the U.S. Fish & Wildlife Service in 1992. The basic information, indicators, and trends that I gathered from the documents and interviews appear in table 5.3.

Table 5.3
Summary of Pease Trends

<u># - Status of wildlife</u>	<u>Theme/Data</u>
Dat1 Percent of base land planned for refuge	31.7%, 1,335 acres
Dat2 Percent of base actually used for refuge	25.7%, 1,095 acres
C1 Perceived condition of base wildlife	8 better, 4 same
C2 The type of land use choice presented	Hob – wildlife refuge, High wildlife specificity
<u># - Indicator Measurements</u>	
C3 Perceived level of environmental activism	8 high, 1 mid, 1 low
C4 If a new wildlife survey was done	Six
C5 Value of wildlife	Biocentric
C7 Specification	Yes
C8 Land use planning & wildlife connection	Strong and direct (5)
Dat3 Number of environmental groups	18
Dat4 Median income, Newington	\$47,010 (in 1998 dollars)
Dat5 1990 Income distribution for Newington	Less than \$15,000 42%
	\$15,000-\$50,000 54%
	Greater than \$50,000 4%
Dat6 Local unemployment rates at closure	4% (1991)
Dat7 Loss of civilian jobs at the base	400
Dat8 New civilian jobs now at base	1,682 ²
Dat9 Metropolitan setting of the base	Suburban ³
C10 Economic conditions in redevelopment	Bad economy drove development
Dat10 Bailey's ecoregion of the base	Hot Continental ⁴
C11 Perceived level of public participation in regard to the undeveloped land on the base	Relatively high
C12 Perceived fairness of reuse committee in regard to the undeveloped land on the base	Relatively high
C13 Perceived competence of reuse committee in regard to the undeveloped land on the base	Relatively high
C14 Cooperation among respondents in regard to the undeveloped land on the base	Little to none
C15 Driving regulations	Implementation issue
Dat11 Amount of funding for redevelopment	\$20,144,413 as of 1995 (in 1998 dollars)
Dat12 The sources of funding	OEA, FAA, & EDA (see table 2.2)

Conclusion

The preservation coalition at Pease firmly believes that they won the struggle against the growth machine: "We were successful and beat the developers and the state because of a grassroots movement (the letter drive), and we were the first out of the gate with a reuse idea" (Reuse-TM 1998, 1, para.). In contrast, the growth machine believes that they gave up this land voluntarily:

All right. We'll give you this 1,200 acres of land, but we're going to develop this land over here. And even after we gave -- and first of all, we made a mistake by giving the 1,200 acres first. We should have held it as a carrot out there until we got what we wanted and said, 'okay now here's your 1,200 acres ... But it wasn't even used as a pawn ... they got the 1,200 acre land before anything happened. Now I say they got it, but it transferred to the National Fish & Wildlife. (Reuse-SJ 1998, 3)

Considering that the land was never "theirs to give" because the Air Force directly handed it over to the U.S. Fish & Wildlife Agency and not the PDA (Close-AD 1998), it looks like the preservation coalition won this struggle. Key to the preservation coalition winning this contest seemed to be the organization and political activity of Newington citizens who implemented the letter writing campaign, pursued the U.S. Fish & Wildlife Service, and had a preservation plan ready to go when the base closed. The Executive Assistant for the PDA's Executive Director summed this up:

So our early board of directors [PRC executive committee] had an uphill battle. It was extremely difficult thing. One, because we were the first. Two, because you had communities here operating under a set a laws and town legislation and small town meetings and things like that, which is a character of New Hampshire, but capable of giving these municipalities enough power to rattle some cages for their own development issues. Okay? (Reuse-SM 1998, 14)

In this case, Newington's development issue was the protection of wildlife habitat next to their residential area. Therefore, a local community was successful in determining what development would occur in their immediate area, and not the growth machine.

Endnotes

- 1 This decision is consistent with PDA's enabling legislation that supports the establishment of a national refuge west of McIntyre Road. (PD3, 15)

Because of the significance of Pease's natural resources, a proposal has been made by the Natural Resource Protection Advisory Committee and has been approved by the Pease AFB Redevelopment Committee [Commission] to designate 1,300 acres of the Pease AFB as a National Wildlife Refuge to be managed by the U.S. Fish & Wildlife Service. (PD7, 95)

In all concepts, there was no potential development use for the area of the Natural Wildlife Refuge. (PD8-Natural Resource Protection Committee Minutes 1990, 1)

Pease wildlife refuge proposal no surprise...
(PD10-Breneman 1989, A1)

- 2 In this context urban refers to heavily developed areas, such as Denver's metropolitan area. In contrast, rural areas are predominately agricultural. Suburban refers to areas that are not as developed as urban but more developed than rural. For example, the land between the Denver metropolitan area and the Denver International Airport would be considered suburban under this definition. This is the definition that I am working with, even though the United States Office of Management and Budget considers the areas around Myrtle Beach Air Force Base and Pease Air Force Base urban ones (Simmons 1997, 334). My definition is based upon the predominate local land use (i.e., urban – very developed, suburban – partially developed, and rural – very little development).
- 3 Air Force Base Conversion Agency 1999c. Status of Operating Locations -- Pease AFB. 24 February. <http://www.afbc.hq.af.mil/ols/pease.htm>.
- 4 Characteristics of Bailey's Hot Continental classification are:
- Hot summers
 - Cool winters (i.e., not uncommon for the temperature to drop below freezing)
 - Moderate humidity
 - Vegetation predominately winter deciduous forest

CHAPTER 6

CONCLUSION

“Would you tell me, please, which way I ought to walk from here?” “That depends a good deal on where you want to get to,” said the Cat. “I don’t much care where,” said Alice. “Then it doesn’t matter which way you walk,” said the Cat.

Carroll, *Alice in Wonderland*

Comparison of Base Factors

Wildlife Status Outcomes

In a historical comparative case study approach such as this one, “... every case should serve a specific purpose within the overall scope of inquiry” (Yin 1989, 53). Pease serves as a successful example of a base that created wildlife protection plans and implemented those plans, while Myrtle Beach serves as an example of one that did not. These differences can be clearly seen in the different wildlife status outcomes:

Table 6.1
Comparative Summary of Wildlife Status Outcomes

	<u>Pease</u>	<u>Myrtle Beach</u>
Percent of base set aside in the planning stage for wildlife habitat	31.7%	0%
Percent of base actually set aside for wildlife habitat	25.7%	0%
Perceived condition of base wildlife	mostly better	mostly worse
Specificity given to wildlife in the planning process as evidenced by the choices given to the public	high	low

The wildlife habitat categories shown in table 6.1 are rather straightforward; the perceived condition of base wildlife was gauged mainly through interviews while specificity refers to the types of pseudo-Hobson's choices presented to the public concerning the undeveloped land at each base. This specificity was also measured by gauging the presence of new wildlife surveys conducted during the reuse planning, gauging the value placed on wildlife (anthropocentric or biocentric), and gauging if differences were made between open space, recreational areas, and wildlife habitat in the planning stage of base redevelopment. From my pilot study at Lowry AFB, I discovered that these measurements were helpful in ascertaining the level of environmental activism. In my later case studies, I also found that they helped to indicate the specificity given to wildlife in the planning process. Since these same measurements were able to successfully gauge both levels of

environmental activism and specificity given to wildlife in the reuse planning process, it can be said that a high level of wildlife specificity in reuse planning is most likely related to the environmental activism of the reuse planning body and surrounding community.

In determining factors that were most directly associated with different wildlife status outcomes at the two bases, I also looked for ones that were most differentiated between the two case studies, much like the significant differences in the wildlife status outcomes. I did this because, according to Weiss and Bucuvalas in their 1980 book, *Social science research and decision-making*, the public decision-making process is a fragmented enterprise with many actors "both inside and outside the agency [where].... Decisions are influenced by legislators, superior officials, subordinates, collateral divisions, other agencies, constituents, and clients" (20). All these different actors, agendas, and conditions create a complex conglomerate of social forces that could cause a factor to be slightly different from one case study to the next based upon entirely different reasons. For example, would a modestly higher median income at Pease be more related to the region's higher cost of living or more to a greater amount of wealth trickling down to the average person? According to Kirk and Miller (1986), "In the case of qualitative observations, the issue of validity is ... a question of whether the researcher sees what he or she thinks he or she sees" (21). Therefore, to avoid seeing "what I expected to see" and thereby lowering the validity of my results, I defined

significant differences to be based upon similar views held across respondent groups at the same base, but different in theme between bases. For example, at Myrtle Beach there were members of each respondent group that described the local level of environmental activism as low while at Pease there were members of each respondent group that described the local level of environmental activism as high.

Reliability was then checked by measuring the number of interviewees and quotes that expressed the same view. Therefore, the more quotes and interviewees stating the same view on a particular indicator, whether by persons in the same respondent group or not, the more reliable that particular factor became. This reliability issue refers to the number of quotes that can be found in chapters four and five and listed in Appendices D and F.

Furthermore, since my research approach was encased within a modified grounded theory method, special attention was paid to factors that were themselves brought up by the interviewees. If enough respondents across the sample population independently alluded to the same factor, it then became an excellent candidate for a thematic nexus in my theory building (Strauss and Corbin 1990). This is what happened with the factor of community cohesion and stability, which was independently alluded to by all respondents groups at both case study bases, and in retrospect, I could see how a few of the interviewees in the Lowry pilot study also alluded to this factor. In the following process of comparing the case studies, this factor arose.

Demographic and Geographic Characteristics

Demographic and geographical considerations were:

- Description of the urban setting of the base
- Ecoregion classification and description

This information was acquired by reviewing the EIS, reuse plans, newspaper articles, Bailey's *Ecosystem Geography*, and through personal observation.

Both of the former bases were similar in size, location, and urban setting (see table 3.1). Furthermore, they were both slightly larger and had fewer civilians working on them than the average base closed in 1988 and 1991 (see tables 2.1 and 2.3). The only major difference seems to be that Pease had six miles of bay front property connected to its undeveloped land while Myrtle Beach did not.

The fact that Pease is in a Hot Continental ecoregion and Myrtle Beach is in a Subtropical one seemed to have had little impact on the uniqueness of wildlife living on either base. Both bases have previously listed federal threatened or endangered species traveling across base property, but they do not nest on it (PD1-3; MBD1-2). Finally, most of the interviewees saw the undeveloped land as being worth preserving because it was undeveloped, not because of any ecological uniqueness or need to preserve federally listed endangered species. Interviewees at both bases simply wanted to preserve undeveloped base land because it was

undeveloped. Couple this with each base having a similar suburban setting and the lack of federally listed endangered species makes this factor appears less unimportant.

Local Community Wealth

Local community wealth was very similar in informational framework to that of the demographic and geographic characteristics. Local community wealth was measured by looking at the following information:

- Median household income at time of closure announcement,
- Per capita household income,
- Income distribution,
- Local unemployment rates,
- Estimated loss of civilian jobs at the base,
- Perceived economic conditions during base redevelopment, and
- Metropolitan cost of living index.

These relatively straightforward measurements were obtained by reviewing census data, city and county data books, city master plans, newspaper articles, and interview data:

Table 6.2
Community Wealth Comparison

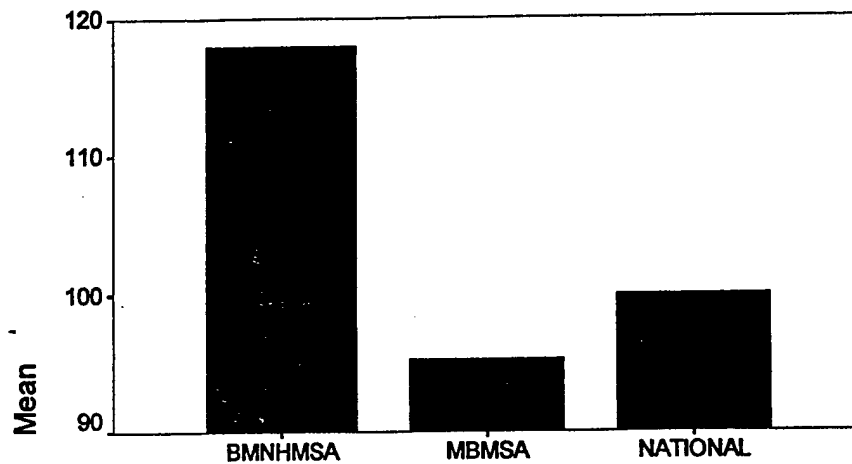
	<u>Myrtle Beach</u>	<u>Newington</u>	<u>National average</u>
1990 median household income (1998 dollars)	\$31,015	\$47,010	\$44,090
1990 per capita (1998 dollars) per person	\$8,578	\$17,694	\$24,452
(the amounts listed below are based off 1990 data)			
Less than \$15,000	24.9%	42%	15.3%
\$15,000-\$50,000	59.8%	54%	50.6%
More than \$50,000	15.3%	4%	34.1%
Unemployment rates (1991)	3.5%	4%	5.4%
Job losses from closure	799	400	998
		(mean from table 2.3)	
How the interviewees perceived the local economic conditions during redevelopment	Good	Bad	N/A

The median income for Myrtle Beach was \$15,995 lower than Newington's, and per capita was \$9,116 lower; however, this is partially a function of the Newington having a higher cost of living than the Myrtle Beach.

The differences in the 1994 metropolitan cost of living index for Pease and Myrtle Beach compared to the national average is shown in figure 6.1 (1994 is the first year this data was compiled for the Myrtle Beach metropolitan statistical area).

Figure 6.2

1994 Metropolitan Cost of Living Index



bmnhmsa -- Boston, Maine, New Hampshire metropolitan statistical area

mbmsa -- Myrtle Beach metropolitan statistical area

When taking these 1994 metropolitan cost of living indexes and calculating ratios based upon 1994 median incomes for the respective cities (Myrtle Beach -- \$28,198 and Newington -- \$42,741), I found that the 1994 naturalized Myrtle Beach median income (Myrtle Beach median income adjusted up for the higher cost of living in Newington) is \$34,524.¹ In other words, \$34,524 in Myrtle Beach would buy the same amount as \$42,741 in Newington. This means that \$8,199 of the \$14,543 difference in the 1994 median incomes can be explained by Newington's higher cost of living. Therefore, differences in median and per capita income are not as major after respective costs of living are taken into account.

When looking at the income distribution, both cities had fewer households earning more than \$50,000 a year and more households earning less than \$50,000 when compared to the national average. This means that both Myrtle Beach and Newington had a higher concentration of wealth in fewer hands when compared to the rest of the nation. Nevertheless, it is interesting to note that the city that demonstrated the greatest level of environmental activism, Newington, also had the largest portion of people living on less than \$15,000 a year (42% vs. the national average of 15.3%), a fact that becomes more relevant when one considers the higher cost of living in New Hampshire compared to South Carolina. This trend seems to run counter to the claim that increased community wealth is a necessary component for wildlife habitat protection (Bernard and Young 1997; Downs 1994; Pye-Smith, Feyerabend, and Sandbrook 1994; Pick 1993; Cairncross 1992).

So, why did a community with such a high level of poor individuals present such a cohesive front in regard to protecting wildlife? This becomes more perplexing when taking into account the issue that the economic conditions around Pease during its closure were perceived as being worse than those around Myrtle Beach during its closure. This too seems to run counter to the claim that bad economic conditions encourage environmentally degrading development (Box 1998). Since there was a strong growth machine acting at both bases whether the economy was good or bad, this would seem to suggest that local growth activity is not very dependent on local economic conditions. In other words, the growth

machine promotes the same response regardless of the economic conditions, more growth.

Both communities had distributions different from the national average: more households in the less than \$15,000 range, more households in the \$15,000-50,000 range, and fewer in the greater than \$50,000 range. Both had lower than usual unemployment rates and Pease lost half as many civilian jobs as Myrtle Beach. Furthermore, the interviewees did not bring up issues of wealth themselves. Therefore, the local community wealth indicator did demonstrate a difference between the national average and each other, but these differences did not seem to impact the wildlife protection status outcomes at the bases (i.e., the interviewees did not allude to such).

In other words, while there were local community wealth differences, how significant these differences were is debatable. But what is not debatable is that the interviewees did not consider local community wealth to be a major factor. Some interviewees did think local economic conditions affected the reasons why developers wanted to develop their respective base. At Myrtle Beach the developers wanted heavy development because the local economy was strong, while at Newington the developers wanted it because the local economy was poor. Therefore, in the case of redeveloping closed military bases, local development pressure seems to be the same regardless of the perceived economic conditions.

Administrative Context and Processes

Both bases were at the top of the list for money received for redevelopment planning, Myrtle Beach -- \$26,260,867 (2nd highest) and Pease -- 20,144,413 (3rd highest) in 1998 dollars, well above the mean and median of table 2.2. Both bases received money from the military's Office of Economic Adjustment, the Federal Aviation Administration, and the Economic Development Administration; only Myrtle Beach received money from the Department of Labor.

At both bases, governmental relationships with federal agencies seemed to be quite good. Individuals at both bases talked about how gracious the Air Force was. In contrast, other governmental relationships were not as good. At Pease, the state and local municipalities had a very poor relationship. At Myrtle Beach, the county and city had a poor relationship. This would suggest that poor governmental relationships arise between governmental agencies when their normal working relationships are changed by suddenly finding themselves responsible for land and infrastructure that they previously were not in charge of. This was not only seen as a problem but also as an opportunity to control the future of local development. The ability to control land use planning and implementation is the power to determine what a community will eventually look like. In other words, in the rush to fill the void left by the Air Force, there was a power struggle between local and/or state authorities.

Finally, there were no respondents at either base who saw governmental regulations as a driving force in reuse planning; they saw governmental regulations as a redevelopment implementation issue. Therefore, with both bases acquiring similar amounts of redevelopment funds from the federal government, having similar IGR trends, and with respondents at both bases considering governmental regulations an implementation issue, there are no significant differences between their administrative processes.

Environmental Ethical Concern and Activism

The local community around Pease exhibited much higher levels of environmental activism than Myrtle Beach, as shown by the number of wildlife preservation comments found in the comment section of its EIS and reuse plan (16/3% and 22/4.5%). Furthermore, I found a higher number of wildlife preservation comments in the local and regional papers (66/19%). This level of environmental activism was also reflected in the creation of subcommittees supporting the executive committee (i.e., Environmental Clean-up Committee & Natural Resource Protection Committee). Both of these committees were able to exert influence on the reuse executive committee, as evidenced by the executive committee passing the Natural Resource Protection Committee's proposal for a wildlife refuge, despite the clearly expressed desire of some executive committee members to have extensive development on that land.

There were 18 environmental interest groups involved in the reuse discussion at Pease, mainly through support of the letter writing campaign to create the wildlife refuge, which generated over 2,150 letters. Six new wildlife surveys were performed during the redevelopment; wildlife habitat was mainly viewed through a biocentric lens, and reuse related documents made a distinction between open space and wildlife habitat. Finally, nine of the respondents thought local levels of environmental activism were moderate to high (eight thought it was high and one thought it was moderate), and five thought there was a strong connection between land use planning and wildlife conditions.

In contrast, Myrtle Beach seemed to have a low level of environmental activism as evidenced by the lack of wildlife preservation comments. The EIS had only two wildlife comments (2.3%), the reuse plan none (0%), and the newspapers one (.37%). Additionally, this lack of environmental activism was also reflected in a lack of subcommittees created to address environmental issues (i.e., Health & Welfare was the only environmentally related one).

No environmental interest groups were directly involved in the Myrtle Beach reuse discussion, although the local chapter of the Sierra Club tried to influence the creation of greenways on the base by pushing to create greenways throughout the city. Only one partial wildlife survey was performed during the base's redevelopment (mainly to make sure that no federally listed endangered species were on the base); wildlife was mainly seen as having an anthropocentric value, and

the reuse-related documents and interviewees made little distinction between open space and wildlife habitat. Finally, all of the interviewees described the local level of environmental activism as low, and only one respondent saw a strong connection between land use planning and wildlife conditions. These significant differences between the measurements in regard to both bases are shown in table 6.3:

Table 6.3
Differences in Environmental Ethical Concern and Activism

	<u>Pease</u> Relatively High	<u>Myrtle Beach</u> Relatively Low
Perceived level of environmental activism		
Number of wildlife related surveys	6	1
Number of environmental groups	18	0
Percent of wildlife comments in the EIS	3%	2.3%
Percent of wildlife comments in the Reuse Plan	4.5%	0%
Percent of wildlife comments in collected newspaper articles	19%	.37%
Perceived use-value of base wildlife habitat	Biocentric	Anthropocentric
Perceived connection between land use planning and wildlife conditions	Strong	Weak

Public Participation

As demonstrated by the number of comments on both the EISs and reuse plans, the Pease local community had a greater level of public involvement than

Myrtle Beach (1,094 for Pease versus 124 for Myrtle Beach), and with more public involvement comes the greater possibility of more voices being heard -- or in this case, the voices concerned with wildlife protection. At both bases most interviewees thought that the overall public participation process was mostly open, fair, and competent. At Pease seven respondents thought the general process was open, seven thought it was fair, and eight thought it was competent. Also at Pease, the perceived levels of public participation, fairness, and competence in regard to undeveloped land were relatively high. At Myrtle Beach, all 11 interviewees thought the overall process was open, nine thought it was fair, and seven thought it was competent. In contrast, whenever the respondents specifically mentioned the undeveloped base land (the TPI theme park issue), the perceived levels of public participation, openness, fairness, and competence were much lower.

In both cases, most of the respondents thought that the process was relatively democratic (six for Pease and nine for Myrtle Beach), although two of the Pease respondents thought that public comments were openly received, while six of the Myrtle Beach respondents thought comments were openly received. More significantly, all of the Pease respondents thought the redevelopment decision making was influenced by ordinary people while none of the respondents at Myrtle Beach held a similar opinion. The unique situation at Pease where fewer people thought the process was democratic but more people thought that the public influenced the decision making was described as the "forcing of democracy on a

system that didn't want it" (P-Reuse-PL 1998, 2, para.). At Myrtle Beach, the people who thought the system was more democratic and responsive seemed to base this view on the planning process being open, regardless of the level of actual public participation that took place. In other words, it was based upon an invitation to participate. All these trends are summed up in table 6.4.

Table 6.4
Public Participation Differences

	<u>Pease</u>	<u>Myrtle Beach</u>
Number of comments on EIS and Reuse plan	1,094	124
Overall perceived level of public participation	High	High
Perceived level of public participation regarding the undeveloped portion of the base where wildlife habitat existed	High	Low
Overall levels of openness, fairness, and competence	High	High
Perceived levels of openness, fairness, and competence regarding the undeveloped portion of the base where wildlife habitat existed	High	Low
Number of respondents who thought the overall process was democratic	Six	Nine
Did the public seem to influence the decision makers?	Yes	No

Community Cohesion and Stability

In the process of comparing the two case studies, a major difference and a new factor emerged -- community cohesion and stability. "Cohesion" is the relative

ability of a local community to use existing social relationships to organize in response to an issue of community concern. "Stability" refers to longevity of residence in a community, as determined by the rate of transience (emigration and immigration over time).

Transience in the local population was measured by determining how long local residents had, on average, lived in the area. This is important because the longer a person has been in a place the stronger their connections to it and the more willing they may be to take action on an issue of community concern. This stability measurement was gauged for Myrtle Beach by reviewing census data, 1991-1997 Chamber of Commerce documents, and Myrtle Beach document number 8 (newspaper articles). At Pease, I reviewed the 1991 Newington Master Plan (which contained 1990 census data and Chamber of Commerce information) and Pease document number 10 (newspaper articles). Also, I looked at the results to the question, "Did you think the local community was unified in what they wanted done with this property, and did they present a cohesive front early in the planning process?" I added this question to my interviews after seeing the emphasis that early interviewees were putting on being the first group to "have an idea on the table."

Myrtle Beach had a very transient, "newly arrived" population that was not particularly cohesive or politically active. Myrtle Beach's growing population and the fact 10 of the interviewees (all of the respondents) did not think that the local

community was very cohesive evidenced this (Appendix D, quotes K, L, N, and O). This lack of cohesion referred to the dearth of shared norms, incomplete communication networks, and the absence of a shared history of community cooperation (this was related to the transient nature of the population). Only one neighborhood organization was involved in the Myrtle Beach reuse discussion. Finally, growth proponents had little or no opposition to their redevelopment agenda for the base.

In contrast, Newington had a very cohesive and stable population with deep roots in the area, and was very politically active. This was evidenced by slow population growth in Newington and the fact that 11 of the interviewees (all of the respondents) thought that the local community around Pease (mainly Newington) was very cohesive (Appendix G, quotes M and V). This cohesion referred to the local community's shared norms, established communication networks, and a long history of working together (town hall meetings). Six local neighborhood/interest groups set themselves up as Pease redevelopment watchdogs. There was a great deal of opposition to growth, which took the form of a well-organized and powerful preservation coalition that successfully created a wildlife refuge. All these differences are summed up in table 6.5.

Table 6.5
Community Cohesion and Stability Differences

	<u>Pease</u>	<u>Myrtle Beach</u>
Population growth, mainly from new people arriving in the area	Slow & steady	Rapidly rising
Perceived Community Cohesion	Strong	Weak
Local groups involved in the reuse discussion	6	1
Opposition to growth	Strong	None
Did a local preservation coalition form?	Yes	No

Since community cohesion and stability was a new factor, it required a new literature review. And one of the areas of scholarly inquiry that seems closely related to this phenomenon is the concept of social capital.

Social Capital

Arguments that communities must closely work together to achieve collective goals date back, at least, to De Tocqueville's *Democracy in America*. In this work he observed that to avoid a loss of democracy, individual isolation from community and political apathy must be avoided. "Despotism, by its very nature suspicious, sees the isolation of men as the best guarantee of its own permanence. So it usually does all it can to isolate them. Of all the vices of the human heart, egoism is that which suits it best" (508). De Tocqueville views affiliation with "free

associations" as the best antidote to such isolation. He observes that early nineteenth-century Americans were "forever forming associations ... of a thousand different types -- religious, moral, serious, futile, very general and very limited, immensely large and very minute" (513). De Tocqueville further argued that it is through this experience with associations that the American people learned the value of "political" associations that can influence government. Later political science theorists came to echo this view of a cohesive community readily forming political action groups as being necessary for effective public participation and democratization (Miller 1998; Putnam 1995a, 1995b; Rousseau 1987a).

This dynamic of a community encouraging or discouraging public participation in the political progress was termed "social capital" by James Coleman in his 1990 book *Foundations of Social Theory*. According to Coleman, when there is more social capital present in a community, its members are more likely to engage in local political processes (public participation). Conversely, when there is less social capital present, members of the community are less likely to engage in local political processes. The term "social capital" achieved national recognition with Putnam's 1995a article "Bowling alone," drawn from his 1995b article "Tuning in, tuning out: The strange disappearance of social capital in America."

Social capital has been described as the "glue that bonds a society" (deLeon 1997, 40). This bonding has also been called "social engagement" (Rousseau 1987b) and "community attachment" (Verba et al. 1993). Wallis, Crocker, and

Schechter (1998a) describe social capital as consisting of “networks and norms of civic engagement” (253). Therefore, key components of social capital are shared norms, established means of civic communication, and a long history of working together.

Wallis, Crocker, and Schechter go on to portray social capital from four different perspectives: academic, public advocate, philanthropist, and community development practitioner. A unifying theme that runs through these four views is that no one is sure how to increase social capital, but most think it’s a worthy goal. A policy concept for investing in a community’s social capital is “participatory policy analysis” (deLeon 1997; Durning 1993). The idea behind this approach is that “...generalized and less-vested panels composed of citizens at large are empowered to participate in deliberations over public policy issues over an extended period of time...” (deLeon 1997, 111). In this respect, do reuse committees or subcommittees operate in a participatory policy analytic way?

Whatever the name, high levels of community cohesion (i.e., social capital, social engagement, community attachment, social ties, social norms, social sustainability, and free associations) have been associated with high levels of public participation (Joyce 1998; Miller 1998; Putnam 1995a, 1995b). In fact, Miller (1998) suggests that high levels of community cohesion and public participation join in a reciprocal relationship:

...social ties (community cohesion) promote political participation by fostering a stake in the community and a sense of empowerment. Simultaneously, acts of political participation feed back to strengthen social ties among those who participate by promoting contact among individuals and a sense of community. (1)

This reciprocal relationship makes sense when one reflects on the literature in chapter 3 in which some theorists suggest that public participation is a necessary ingredient for sustainable development.

Some sustainable development theorists suggest that the sustainable use of species and their habitats can only be accomplished by local communities that are intimately familiar with their natural and social environments and because of this familiarity, care about local wildlife (MacEachern 1994; Western, Wright, and Strum 1994; Holmberg 1992; Zisk 1992; Dasmann 1985). Viederman (1995, 1993) connects this view to social capital by arguing that sustainability can only be achieved when a community controls its own capital in all its forms -- natural, human, human-created, social, and cultural. "Civic environmentalism" is a concept that is somewhat related to this. It proposes "decentralized, bottom-up initiatives using new tools to address newly recognized environmental problems" (John 1994, xiv). Civic environmentalists believe that a top-down federal regulatory approach cannot address complex threats to local ecosystems. When combined, these works point towards the importance of community cohesion in achieving environmental protection, sustainable development, and wildlife protection goals at the local level.

In this respect, local community action based upon high environmental ethical concerns may be able to address local ecosystem threats.

When a preservation coalition confronts growth proponents, this confrontation usually centers on what future land use patterns will be. Land use patterns that have led to urban sprawl are heavily dependent on the market model of local economic development. For example, Peterson (1981) proposes that cities pursue these types of policies to maximize profits for local businesses and, more important, as essential to the unitary good of the whole community. But critics of this market model of local economic development reject its economic determinism and challenge its faith that the material well-being of the business elite coincides with some identifiable good for the whole community (Molotch 1993; Stone 1989, 1993; Logan and Swanstrom 1990; Lundberg 1989; Logan and Molotch 1987; Stone and Sanders 1987).

Ramsay (1996) believes that we can learn from the culture of ancient Greece and the "town hall" processes of communities in New England:

These lessons from history teach us that a significant polity requires commitment to a shared way of life that is valued because it endows human life with significance and meaning through participation in a larger, more dignified, and nobler purpose than the egoistic pursuit of material gain. 'Conjoint consumption,' even as consumers of sports spectacles, does not quite fill the bill. Citizenship means participation in the *production* of public goods, whatever they may be [emphasis in the original]. (23-24).

This is local citizens joining together to impose their collective will on local government processes (including planning). Is this a "tyranny of the masses?" Madison believed that the "elite" knew what was best for the community and the country as a whole. There is no question that the elite knows what is best for them - which is why they are the elite. However, some sustainability theorists question the belief that the development elite knows (much less does) what is best for the non-elite and the environment (Hampson and Reppy 1996; Durning 1993).

In this respect, Finger and Kilcoyne (1995) have described how industrial development has led to industrial production, depleted resources, pollution, competition for resources, and eventually social erosion. They propose that the best way to reverse this "vicious circle" is to build stronger communities that take control of their local development, ensuring that it is done in such a way as to assure environmental, economic, and social sustainability.

In the battle between growth proponents and preservation coalitions, growth proponents seem to have an organizational advantage due to the nature of the development industry. It is the developers' job to build, and if this is their cause, they do not need to take time off from work to fight for their cause. In contrast, I found that preservation coalitions relied upon local volunteers working in their spare time (Callison 1998; Bresciano 1998; Tonn and Petrich 1998). Additionally, developers usually belong to a small group of individuals who are relatively wealthy

and influential. Preservation coalitions usually have to rely on a large number of members to demonstrate support for the validity of their agenda (Ramsay 1996).

In regard to my research question, I am not specifically concerned about the type of planning used because the reuse planning procedures in base redevelopment is controlled by closure regulations (see chapter 2). However, by looking at the level of local public involvement and community cohesion in base reuse planning, I was able to comment on whether more local involvement vs. less local involvement encouraged wildlife protection. In this sense, the above literature suggests that community cohesion and stability are important considerations for achieving wildlife protection goals. Both the environmental activism and public participation factors suggested that community cohesion and stability played a role in successfully challenging the growth machine, but neither literature area specially addresses it like social capital does.

Results

In a comparative approach, one looks for significant differences. The most significant differences between Myrtle Beach and Pease were amounts of land set aside for wildlife habitat (1,035 acres for Pease, 0 for Myrtle Beach), level of environmental activism (high for Pease, low for Myrtle Beach), community cohesion and stability (strong for Pease, weak for Myrtle Beach), and public

participation in regard to the redevelopment of open land at each base (high for Pease, low for Myrtle Beach).

The factors discussed above had significant differences between the bases (see tables 6.3, 6.4, and 6.5), but are these significant differences valid and reliable? To ascertain this requires a discussion of the relative unity of opinion across respondent groups (for validity) and the number of comments and persons supporting the respective views (for reliability). These counts are based on the descriptive response summary (Appendix E) and specific comments presented in chapters 4 and 5 and in Appendices D and G. There are quotes referenced in the descriptive summary that are not presented in the respective base chapters and quote Appendices because they were not "the best example of a view." For example, when an interviewee responded to a question with a simple, non-aggressive affirmative that was not associated with a revealing explanation, I did not include it in the respective chapter or Appendix; however, I did count the response in the descriptive summary. Therefore, the comment counts that are presented here do not always have examples of all the quotes.

Environmental activism is a background community condition that was considered to be at a medium to high level at Pease by respondents in all respondents groups; most of the respondents from Pease's Reuse and NGR respondent groups thought there was a close connection between land use and wildlife planning, and respondents from all Pease respondent groups viewed

wildlife in a biocentric way (chapter 5 and Appendix E). In contrast, all interviewees at Myrtle Beach characterized the local level of environmental activism as low; respondents from all of Myrtle Beach's respondent groups thought there was a weak connection between land use planning and wildlife conditions, and respondents from both Myrtle Beach's Reuse and NGR groups mainly viewed wildlife as having an anthropocentric value (see Appendix D and E). Having this unity of opinion across respondent groups at the respective bases shows validity for there being a significant difference between their levels of environmental activism.

In regard to reliability, there were 11 comments from nine individuals that supported the view of high to moderate environmental activism at Pease; there were five comments from five people supporting a strong connection between land use planning and wildlife conditions, and there were 11 comments from seven people presenting a biocentric use-value of base wildlife habitat (chapter 5 and Appendix G). At Myrtle Beach there were 17 comments from all the interviewees describing the local level of environmental activism as low; there were six comments from six individuals that thought the connection between land use planning and wildlife status was low, and there were eight comments from seven individuals presenting the view of wildlife as having an anthropocentric value (chapter 4 and Appendix D). All this indicates that relatively high levels of environmental ethical concern coupled with a willingness to act on these concerns (activism) played an important role.

There was also a significant difference between the background condition of long-term community cohesion and stability between the two communities surrounding the undeveloped portion of each base (Myrtle Beach and Newington). At Pease there were respondents in all respondent groups who described the local level of community cohesion as high, opposition to the growth machine's proposed development as high, and that alluded to the community's cohesion and stability as being an important factor in the creation of a preservation coalition (chapter 5 and Appendix G). At Myrtle Beach there were respondents in all respondent groups who described the local level of community cohesion as low, opposition to the growth machine's proposed development as low, and that alluded to the community's lack of cohesion and stability as an important factor in the failure to create a preservation coalition (chapter 4 and Appendix D). This consistency across respondent groups points towards a significant validity between long-term community cohesion and stability in the two communities.

Unlike measurements of environmental activism and public participation, the quotes supporting these community cohesion and stability measurements are not readily separable. This is a function of long-term community cohesion and stability being a factor that was brought up by the interviewees themselves and there being fewer questions and measurements related to it. Therefore, there were a total of 27 comments from 11 respondents supporting the importance of long-term community cohesion and stability in regard to wildlife protection in Pease redevelopment

(chapter 5 and Appendix G). At Myrtle Beach there were 20 comments from 10 respondents supporting the view that low levels of community cohesion and stability contributed to wildlife protection being a low priority in base redevelopment (chapter 4 and Appendix D). Such a large number of comments, coupled with the number of respondents who expressed this view, again indicate that this factor played an important role in contributing to the protection of wildlife on one base and not the other.

Finally, there was a significant difference between levels of the reuse committee dynamic public participation at the two bases, specifically in regard to reuse of the undeveloped land. At Pease there were respondents in all respondent groups who thought the process was open to the public, thought that the redevelopment participants were treated fairly, and that the reuse committee made competent decisions in regard to the reuse of undeveloped base land in particular and reuse of the entire base in general (chapter 5 and Appendix E). At Myrtle Beach there were respondents in all respondent groups that thought the same for general base redevelopment; however, there were members in all respondent groups who thought that the reuse planning for the undeveloped land was not open, fair, or competent (chapter 4 and Appendices D and E).

The Pease results were comparatively reliable with eight comments from four respondents supporting the view that the reuse process was open in regard to Pease's undeveloped land. There were nine comments from seven people

supporting the view that the redevelopment process was mostly fair, and there were nine comments from eight people supporting the view that redevelopment decisions were generally competent (chapter 5 and Appendix G). In contrast, there were seven comments from only three individuals supporting the view that the redevelopment planning of the Myrtle Beach's undeveloped land was neither open, fair, or competent (chapter 4 and Appendix D). Therefore, the finding of a significant difference between public participation levels between Pease and Myrtle Beach was valid, but not as reliable as it was for environmental activism and long-term community cohesion and stability.

Discussion

My results point towards three significant differences between a redevelopment that provided habitat for wildlife and one that did not. For there to be a relatively high degree of wildlife consideration in base redevelopment planning, and in answer to the question guiding this research, the factors most closely associated with the protection of wildlife at the closed bases studied were (1) relatively high levels of local environmental activism in the community, (2) relatively high levels of community cohesion and stability, and (3) relatively high levels of public participation in the closure and conversion process by the local community. As evidenced by these case studies, growth proponents wished to build no matter what the economic conditions were, and if a preservation coalition did not

form to oppose them, the growth machine won by default in the power struggle over base redevelopment. In one case of base redevelopment (Pease), there seemed to be a struggle over who would most affect reuse planning, the growth machine or the local community. This struggle echoes the elite democracy versus participatory democracy debate (Steelman 1996; Polsby 1980; Fagence 1977; Dahl 1961), or as is more applicable in this case -- a growth machine elite democracy versus preservation coalition participatory democracy. Central to this debate is community cohesion and stability because the presence of this factor seems to empower a local community while its absence seems to empower the growth machine. Additionally, it seems that the preservation coalition has the best chance of forming in an area in which a high level of community cohesion and stability already existed.

An area of social research I found to be closely associated with the community cohesion and stability indicator is that of social capital (Miller 1998; Wallis, Crocker, and Schechter 1998a, 1998b; deLeon 1997; Putnam 1995a, 1995b; Coleman 1990; Rosseau 1987a, 1987b; De Tocqueville 1969). However, my community cohesion and stability factor suggests a dynamic that describes more than just "the glue that bonds a society" (deLeon 1997, 40); it suggests that community cohesion (i.e., social capital) is also related to a stable population, one that is not transient or "newly arrived." It is hard to be less "newly arrived" in the United States than a closely-knit town hall community in New Hampshire that can trace its history back almost 400 years (Newington Master Plan 1991, 16). In

support of this, Goudy (1990) finds a strong relationship between length of residence, income, age, and community attachment (i.e., community cohesion/social capital).

Finally, where Miller (1998) proposes a reciprocal relationship between a cohesive community and a high level of public participation in local government, this research suggests that perhaps there must first be a stable community in order for a cohesion one to form, or Miller's reciprocal relationship will never get started. This is supported by the interview data suggesting that a stable population made it easier for the Pease community to organize in respect to its goal of wildlife preservation.

The three factors (two background community conditions and one reuse committee dynamic) that are associated with successful wildlife protection in base redevelopment seem to serve distinct roles in regard to each other:

Environmental activism as the initiator --
(Myrtle Beach, Appendix D: H, I, and J)
(Pease, Appendix G: G and H),

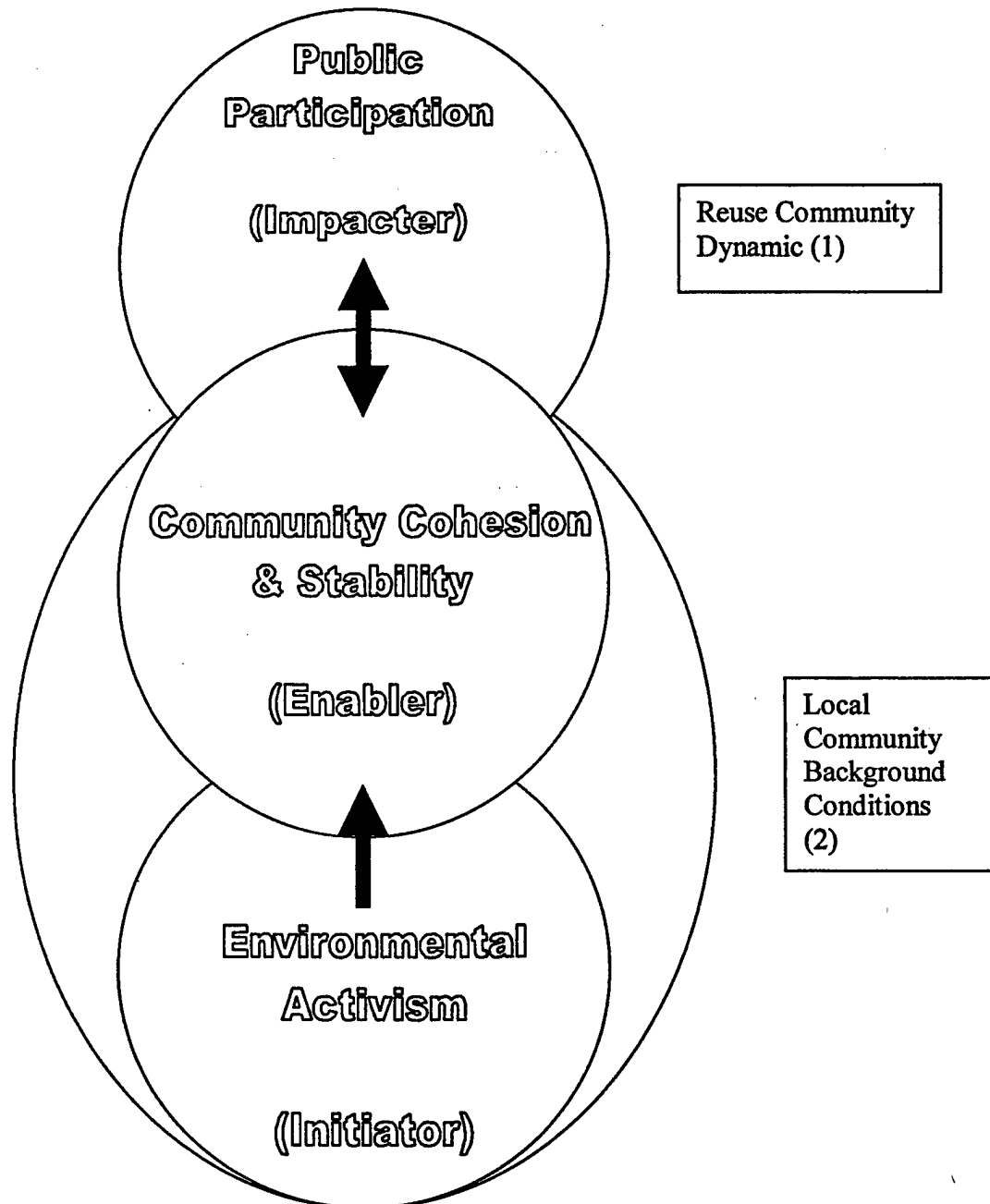
Community cohesion and stability as the enabler--
(Myrtle Beach, Appendix D: K and O)
(Pease, Appendix G: M and V), and

Public participation as the impacter --
(Myrtle Beach, Appendix D: L and N)
(Pease, Appendix G: M and V).

These roles are not so cut-and-dried as presented above but overlap as shown by Miller's (1998) research that demonstrates a reciprocal relationship between community strength and public participation and by the fact that some of my interview quotes can be placed in different groupings (i.e., see Appendix G: M and V). The factor relationship in this study is best shown by figure 6.2 (see next page). A chain is only as strong as its weakest link, and in this scenario the link between environmental activism and public participation is community cohesion and stability. Without it there seems to be little connection between a high environmental ethic and an ability to influence government decision makers. Once this enabler is established, the chain is complete, and Miller's reciprocal relationship between community cohesion and public participation may start to function. If a high level of environmental activism is the initiator, then this high level of environmental activism may also benefit from the reciprocal relationship because of its association with an environmental success story. This happened at Pease where the same preservation coalition fought a successful battle to limit flights and general airport development after it won its fight to preserve wildlife habitat.

Here I propose a substantive theory that is mostly descriptive with some prescriptive aspects. This theory states that successful wildlife protection planning in the case of local land development subsequent to domestic base closures requires a high level of environmental ethical concern on the part of the local community,

Figure 6.2
Factor Relationships



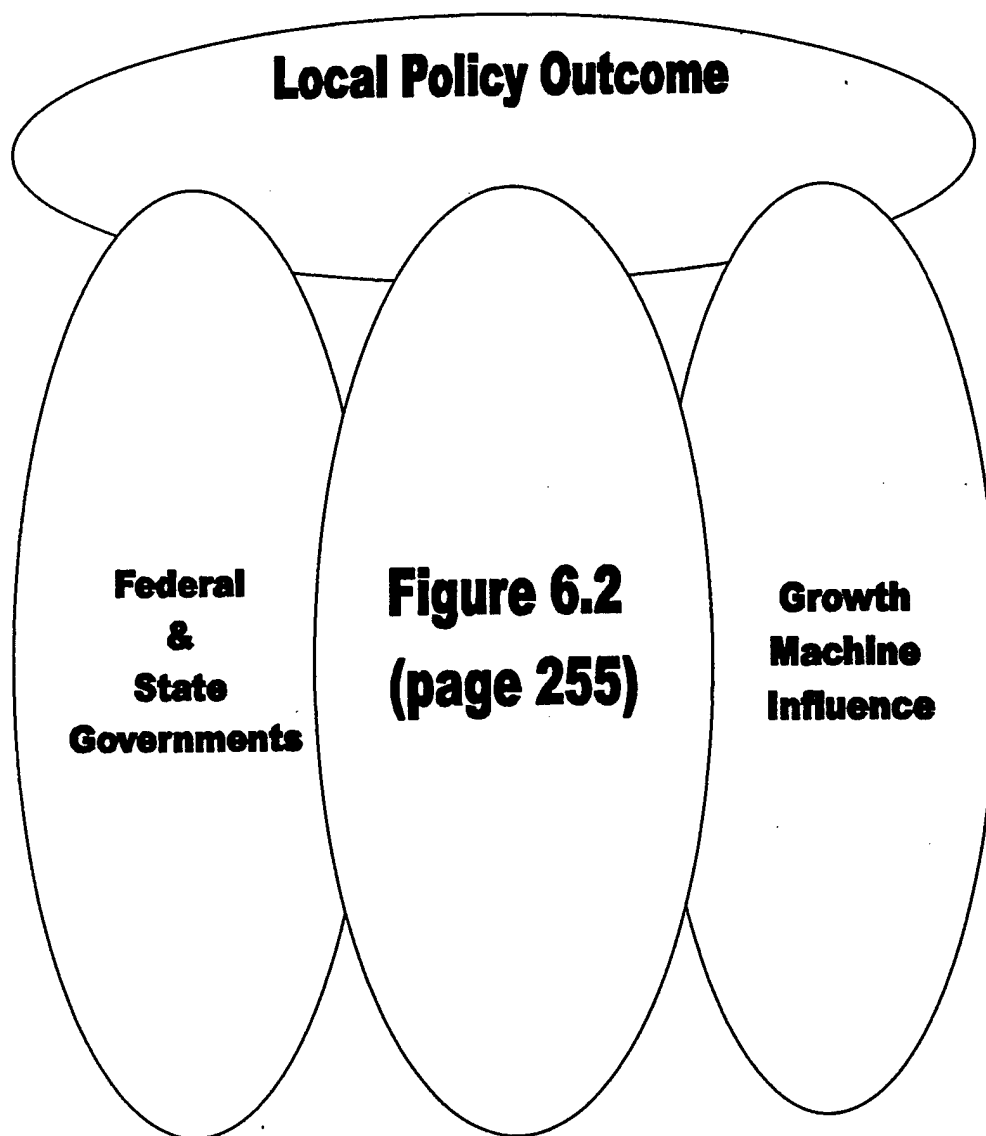
coupled with community cohesion and stability and an open public process where a united community can project its environmental ethic on government decision makers. Without any one of these three factors, wildlife protection becomes more unlikely. Even so, community cohesion deserves special attention because it behaves like a bridge between a community's environmental activism and the government's willingness to include the public in its decision-making processes. Additionally, it is the only factor from this study that the interviewees themselves expressed as important, without any prompting from the researcher.

Finally, the social conditions that seem to help the growth machine achieve its development goals are individual isolation (low community cohesion) and political apathy. Low community cohesion and political apathy have been found to be more prevalent in rapidly growing communities that have a large, transient population (Goudy 1990; Aiken and Mott 1970). In other words, where there is a lack of community cohesion mostly based on the absence of community stability, the growth machine can operate in a public participation vacuum where there is little or no resistance to growth. This is the antithesis of interest group pluralism; key decisions are made by a development elite. However, more than a simple pluralism versus elitism dynamic was at work here. Ramsay (1996), Stone (1994), and Swanstrom (1985) describe how urban regime theory (and by association the growth machine) moves beyond the elites versus pluralism debate.

Figure 6.2 works inside a larger dynamic, which includes the influence of growth proponents and government agencies that are outside the local arena (see figure 6.3, next page). It is the interaction of these three spheres of influence that determines local policy or, as in the case of my study, the protection of wildlife habitat. In other words, the growth machine pushes for more development and higher levels of government may or may not support the growth machine. For example, at both Pease and Myrtle Beach, developers wanted to build on the undeveloped base land. At Pease, the developers had to deal primarily with local municipalities and the surrounding community. The community surrounding the undeveloped land at Pease did not want development of the land; they wanted it to be set aside for wildlife. Therefore, a land use planning struggle ensued, and the local community initiated the creation of a preservation coalition opposing the growth machine. In the end, the local community determined land use patterns in their surrounding community by having the Air Force transfer the land directly to the U.S. Fish & Wildlife Service for use as a wildlife refuge (as per base redevelopment regulations presented in chapter 2).

At Myrtle Beach the developers went to the state (specifically the governor's office), and the state convinced the Air Force to give the undeveloped base land to the state in the form of a land swap. Once the state had this land, it was immediately slated for development as a theme park by the development agency that proposed the idea (TPI). In this way the growth machine circumvented

Figure 6.3
Policy Outcome & Influencing Elements



possible local intervention by using the reuse priorities in base redevelopment planning regulations as described in chapter 2, along with their strong connections to state-level government decision makers. Therefore, the presence of figure 6.2 factors (page 255) may not be the only element that can determine local policy outcomes. Nevertheless, the presence of these factors makes political activity for the developers and higher levels of government more complicated and difficult if their development goals do not match the ones presented by a united local citizenry with a high level of environmental activism who are willing to use public participation means to achieve their goal.

However, in the next section of this chapter, I make recommendations based upon figure 6.2 factors only because I only have supporting data for these factors. Figure 6.3 is merely a proposal on how my discovered factors may operate in respect to outside elements at a higher level of analysis (my study concentrated on the local level).

Recommendations

As this study indicates, community stability nurtures community cohesion (relatively high social capital), which is the jumping off point for increased public participation that may also lead to a reciprocal relationship between community cohesion and public participation. Furthermore, if the issue that galvanizes the community is environmentally based, such as preventing the construction of a new

condo complex or creating a wildlife refuge, then that environmental issue and other environmental issues will benefit from an association with a cohesive community that has high levels of public participation in local political issues.

Policy Implications

Based on these observations and analysis, I believe there are specific measures that can be taken to enhance the interactive effects of the three factors found in figure 6.2, thereby increasing the likelihood that wildlife habitat will be adequately protected subsequent to future base closures. These recommendations are made at two levels of government activity: the Department of Defense (DoD),² and the community adjacent to future closed bases (local level) since it is these two levels of government that are, by law (see chapter 2), the most directly involved in the closure and redevelopment of military bases.

Community Background Conditions

Increasing Environmental Ethical Concern and Activism, DoD Suggestion 1.

Since environmental ethical concern and activism is a background condition, it will be difficult to improve, from a DoD point of view, because it is not under DoD control. However, the controlling DoD agency at a closure base could attempt to educate and train the surrounding community on the base's existing wildlife habitat and its importance to the local ecosystem. This educational process could be

attached to the same closure and redevelopment educational process that is provided by the military. For instance, base closure act implementing regulations in effect as of this writing state, in part:

It is DoD policy to: (a) Help communities impacted by base closures and realignments achieve rapid economic recovery through effective reuse of the assets of closing and realigning bases -- more quickly, more effectively and in ways based on local market conditions and locally developed reuse plans. This will be accomplished by quickly insuring [sic] that communities and the Military Departments communicate effectively and work together to accomplish mutual goals of quick property disposal and rapid job generation. (32 CFR, subchapter G, section 174.4, page 938)

The language in line four of the quote above could be changed to read, "in ways based on local market conditions, environmental constraints, and locally developed reuse plans."

DoD Suggestion 2. The federal government could require that future reuse committees create a natural resource protection subcommittee, like the one Pease had. Currently, there are no regulations specifically outlining what subcommittees should be established. The Office of Economic Adjustment, which provides a great deal of the reuse planning funds, only suggests that subcommittees be formed, no more (Office of Economic Adjustment 1995). The chair of the reuse committee at Myrtle Beach thought that the most important thing that could be done to improve the reuse planning and base redevelopment process was:

...through the Air Force and the future base closures, some concrete guidance to the community that we're going to turn the base over to on how you're going to form a Task Force [reuse committee]. Here's the budget for this. This is what you need to do. (MB-Reuse-ED 1998, 3)

By connecting reuse planning and redevelopment money provided by the Office of Economic Adjustment to a requirement to create a natural resources protection subcommittee, the federal government may raise the environmental awareness of the local community members involved in base redevelopment. However, this suggestion could lengthen an already long process and encourage more criticism about the plodding pace of the redevelopment process (see chapter 2).

Community Suggestion. Conversely, the local community could require that a natural resource protection subcommittee be formed, but this implies that a certain level of environmental activism already exists in the community. If this activism doesn't exist, the local community needs to form an environmentally concerned political action group (preservation coalition). However, a local community surrounding a closure base may not be very cohesive or stable, in which case the recommendations below may be more applicable.

Increasing Community Cohesion and Stability. Clearly, a small, close-knit community like Newington's town hall government is very stable because of its long history and slow growing population. But not all, or even most, communities neighboring military bases being closed approximate the New England-style community government ethic. This is the paradoxical social capital argument; it's

wonderful if a community has it, but if a community doesn't, it's very hard to grow (Miller 1998; Wallis, Crocker, and Schechter 1998b; Putnam 1995a, 1995b; Rosseau 1987a).

Community Suggestion 1. In regard to wildlife protection issues at military closure bases, a strengthening of the community based upon increased stability may be what is needed to "grow it" (i.e., community cohesion/social capital). But how can a community overcome the social capital paradox? First, the growth of social capital based upon increasing community stability is only a "paradox" if one is attempting to do it quickly. If time is not a large concern (and since my research suggests that community cohesion is loosely based upon community stability), then any measures taken by a community to reduce transience may eventually improve community cohesion.

Local communities could encourage practices that support the "setting down of roots." This could be done by the creation of local government policies promoting long-term home ownership by making housing more affordable since homeowners tend to be less transient than renters (Goldman, et al. 1995). Goudy (1990) supports this view in his research by showing a strong relationship between length of residence, income, age, and community attachment (i.e., community cohesion/social capital). Newington, with its long history of the same family owning the same home for generations, provides such an example (Newington Master Plan 1991). Furthermore, other actions could also be taken that would

increase the quality of life in the area, and this too may encourage more people to "set down roots." However, this recommendation has a serious drawback because of its long timeline for implementation, and time is a commodity that is in short supply during base closure and redevelopment.

Community Suggestion 2. Another possibility is that a local community around a closed military base could ask that a neutral facilitator be provided and funded by DoD to become involved in the redevelopment process. Since a local community that is not very cohesive would probably not be very organized, it would be under-represented in the base redevelopment planning process compared to the growth machine and its interests. The growth machine has an organizational advantage because it is the developers' job to build, and advancing that end is a part of their job, thus requiring little time outside of work. In contrast, members of a local community must take time away from their other activities (this often includes time away from work) to become involved in community planning issues such as base redevelopment (Callison 1998; Bresciano 1998; Joyce 1998; Miller 1998; Tonn and Petrich 1998). In this way, a local community that is not very cohesive or politically active could be adequately represented by a neutral facilitator without having to organize into a coalition and paying the cost (in time and money) that they may not be able to pay. This could take the place of deLeon's (1997) "nominal compensation" for their public participation (116).

DoD Suggestion 1. From a DoD point of view, how can the planning processes in regard to base redevelopment be restructured to encourage community cohesion? Again, community cohesion and stability is a community background factor, and the DoD has no direct control over this; therefore, it is more difficult to influence than a reuse committee dynamic. A possible option is the creation of a publicly selected local participatory policy analytic group (deLeon 1997) or an empowered citizen advisory committee (Lynn and Busenberg 1995) that would become the decision-making body in regard to local development taking place around a closed base. In my research, the subcommittees for the Pease Redevelopment Commission behaved like successful citizen advisory committees as described by Lynn and Busenberg (1995), and part of the reason for this is that the average citizen living next to the base was directly represented on the subcommittees by Newington selectmen and their fellow citizens who volunteered. Reuse committees and subcommittees structured in this way may cause members of the general public to feel like the community is a part of them instead of them just being "in" the community. And based upon the reciprocal relationship presented by Miller (1998), increased public participation may increase community cohesion. In other words, an experience like the one at Pease could "jump start" community cohesion by causing the local community to become more native to the place they live (Jackson 1994).

DoD Suggestion 2. Another DoD option could be based upon the same recommendation made for increasing environmental activism, that is, educating and training the public on how to improve their community cohesion so they can influence the reuse planning process. The last sentence of 32 CFR, subchapter G, section 174.4, part b could be changed from "mutual goals of quick property disposal and rapid job generation" to "mutual goals of quick property disposal, rapid job creation, and increased community cohesion" (1999, 938).

Reuse Committee Dynamics

Increasing Public Participation. This study raises an important policy question: "What is the appropriate role of the military in general and the Air Force in particular in regard to the implementation of the base closure acts and wildlife protection?" In answer to this question there are two options: 1) rewrite federal regulations so that wildlife protection issues have to be addressed by reuse committees; or 2) continue to allow the local communities to determine base redevelopment patterns but provide suggestions on how public participation by the community immediately around the base can be increased.

The way that the reuse process is currently designed, public participation is based upon an invitation to participate. At Pease, when the public was invited to participate, they arrived in droves. However, when the invitation was extended at Myrtle Beach, the public failed to show up in any significant numbers.

DoD Suggestion 1. From an Air Force, DoD, and/or federal government point of view, the Pease closure committees (specifically the natural resource protection committee) behaved like empowered citizen advisory boards. With this in mind, the federal government could encourage future subcommittees to be organized in a similar manner. Future reuse committees could be required to solicit volunteers from the local community rather than relying on the "friends" of political appointees to fill these positions. Currently, there are no regulations specifically outlining the membership of subcommittees. The Office of Economic Adjustment, which provides a good deal of the reuse planning funds, only suggests that subcommittees be formed, no more (Office of Economic Adjustment 1995). The chair of the reuse committee at Myrtle Beach thought that the most important thing that could be done to improve the reuse planning and base redevelopment process was "some concrete guidance to the community" (MB-Reuse-ED 1998, 3). By connecting reuse planning and redevelopment money provided by the Office of Economic Adjustment to a requirement to fill the positions of subcommittees with publicly solicited local community volunteers selected by the reuse committee, the federal government could encourage local community involvement while reducing the growth machine's planning monopoly. This way, the existing level of social capital can be used by the community itself, and the redevelopment of the base might not become the sole vision of a growth machine. However, this suggestion

could lengthen an already long process and encourage more criticism about the plodding pace of the redevelopment process (see chapter 2).

DoD Suggestion 2. Another suggestion that could be implemented along with or in place of the previous one is that conservation funds could be provided to other federal agencies, such as the U.S. Fish & Wildlife Service, to manage wildlife lands transferred from closed DoD facilities. This was a recommendation made by the U.S. Fish & Wildlife Service officers in charge of the Great Bay Wildlife Refuge at Pease, who complained about a lack of funds for previous base lands that the U.S. Fish & Wildlife Service had already acquired:

And there's, like, two sides to the way the Service [Fish & Wildlife] is looking at it. There's the folks on one side that say it's sucking up all our money and all our resources to take care of these parcels of land that we're getting, basically, just as turnover from the military.... And then there's other people that [are] going, wow, look at this large acreage of land that we have up there and the opportunities we have to manage it.
(P-NGR-SV 1998, 1-2)

This recommendation has particular advantages. First, "[a] billion dollar land rush is under way in Congress, with both political parties saying they want to preserve open spaces, protect wildlife and set aside environmentally sensitive areas" (Hebert 1999, 34A). In recent months, there have been several congressional proposals to dramatically increase conservation spending (some proposals have been as high as \$2.59 billion dollars). Already, Interior Secretary Bruce Babbitt has a "\$295 million

shopping list of 86 priority projects, including buying 450,000 acres in California's Mojave Desert..." (Hebert 1999, 34A). In this way, if the U.S. Fish & Wildlife Service continues to get free parcels of closed military bases transferred to them (as per closure regulations, see chapter 2), this could enable them to buy that much more private land with the money they save.

Second, by providing funds for the U.S. Fish & Wildlife Service to go around the country inspecting closed bases for possible wildlife habitats to protect (like the way development companies go around the country looking for undeveloped land on military bases to develop), the U.S. Fish & Wildlife Service could adopt the role of an NGR respondent group. In this role they would have a natural advantage over development companies because, as a federal agency, they would get top priority in acquiring base land.

Third and finally, by adopting an NGR role in base redevelopment, the U.S. Fish & Wildlife Service could avoid the pitfalls of other federal government level recommendations made in this section. For instance, the base redevelopment process is organized to handle a large number of NGRs, the addition of one more would probably not slow down the redevelopment process as would DoD suggestion 2 for increasing environmental ethics and activism and DoD suggestion 1 for increasing public participation.

DoD Suggestion 3. Leaving redevelopment up to local individuals, communities, municipalities, and development organizations has been the basic

policy promoted by the military. If the military wanted to continue this trend but also attempt to protect wildlife, then providing voluntary guidelines could be a viable option. The military could provide the same guidelines as in suggestion 1 for increasing public participation, but not make them a requirement or attach them to money provided by the Office of Economic Adjustment.

Community Suggestion. In much the same way that the DoD would have a difficult time influencing community background factors, local communities may have a hard time influencing reuse committee dynamics. From the local community point of view, steps could be taken to increase community power and influence. To address this, one needs to look at Newington's social culture. Newington had developed a local political culture that promoted participatory democracy instead of elite democracy; this was community power in action. Key to this was the way Newington selectman directly represented Newington citizens (mainly through town hall meetings). Furthermore, when Newington was asked to provide members for the PRC subcommittees, they asked for volunteers from their community. For small towns, the holding of town meetings to discuss base redevelopment issues may be a community option. But, there are very few cities around closure bases that are as small and as stable as Newington; therefore, developing town hall meeting processes for these cities is not an easy option. Nevertheless, there are other ways to exercise and increase community power (Ramsay 1996; Judge, Stoker, and Wolman 1995; Pick 1993, Aiken and Mott 1970), and these avenues should be

investigated by communities that question whether their interests are adequately represented by their local officials. For example, the community in question could put an ad in the local paper asking for volunteers to fill subcommittee memberships.

Any one of these recommendations, if implemented alone, may improve the possibility of wildlife habitat protection; however, if more than one, or all, were implemented the chances of wildlife habitat protection may be improved, that much more.

Recommendations for Future Research

This research points towards the importance of a high level of environmental ethical concern and activism, community cohesion and stability, and public participation in achieving wildlife protection goals during base redevelopment. Future research should look at scenarios where one or two of the three factors do not exist to further understand the relationships between them. Specifically, this should include scenarios where community cohesion and stability is absent but environmental activism and public participation avenues are present. Other base closures represent an excellent possibility for this because, as this study shows, reuse committees are required to engage in some level of public participation. Therefore, some level of access to government decision makers is assured in the redevelopment of a closed base. For example, a closure that occurred in California after these two case studies (i.e., the 1993 or 1995 round of closure) might be able to

provide a redevelopment scenario where there was a high level of environmental activism in the local community but a low level of community cohesion.

Why choose California? California is the home to many environmental interest groups, organizations, and companies (Brainard 1992; Morrison Environmental Directory 1990). Furthermore, California has a higher transient population, and its population is growing much faster (mainly from immigration) than my New England case study (United States Bureau of the Census 1997; Garwood 1988). When these aspects are combined with a base closure and its redevelopment processes requiring a certain level of public involvement, the chances of finding a case study where there is a high level of environmental activism and public participation but a low level of community cohesion and stability seems plausible.

Finally, further research into the connection between a community's stability and its cohesion would also be beneficial. Current research into social capital (i.e., Wallis, Crocker, and Schechter 1998a, 1998b) and some of the public participation literature (i.e., S. J. Rosenstone and Hansen 1993; Wolfinger, Rosenstone, and Rosenstone 1980) hold merit for commenting on this. By understanding how a stable community is able to create strong bonds between its members, and if there is a reciprocal relationship between community stability and community cohesion, procedures for encouraging community cohesion may come to light. In turn, this

knowledge, itself could create more community cohesion -- in short, providing a quick way to enhance community cohesion in today's transient society.

Endnotes

- ¹ The naturalized (adjusted cost of living) calculations are below:

$$\frac{118}{95.3} \times \$42,741 = \$X$$

(1994 cost of living for BMNHMSA) = (1994 Newington median income)
(1994 cost of living for MBMSA) = (1994 Myrtle Beach naturalized median income)

Solving for X, X = \$34,524

- ² Since I have only worked for the federal government, I was able to speculate on more federal recommendations than local ones. Perhaps, giving federal employees more experience with local government could also be a further recommendation for increasing the chances of the federal government developing policies that would encourage local community cohesion.

We need a new system of values; a system of the organic unity between humankind and nature and the ethic of global responsibility.

Mikhail S. Gorbachev, *Global Green USA*

APPENDIX A
INTERVIEW QUESTIONS

Date _____
Base _____
Interview # _____

It should be noted that these questions are preliminary in nature and may evolve and change through the early part of the dissertation. These questions will also be modified in regard to the characteristics of the individual being interviewed (i.e., BRAC site managers would have slightly different questions than local community activists).

Protocol:

Hi, I'm Tom Williams, and I am a captain in the Air Force doing my dissertation on base closures that have been able to preserve open space and/or wildlife habitat while ensuring economic redevelopment. This interview is part of my research for this dissertation and should only take about 30 minutes.

- - Hand out a business card - -

Your (position, experience, or background) places you in a position to have an expert opinion, and I am grateful to you for taking the time to see me.

If you have no objection, I will make an audiotape of this interview to which I alone will have access. This tape is strictly for my use and will be used only to assist me in writing my dissertation. I will be happy to turn off the tape recorder at any time you direct, and your comments during that time will be strictly "not for attribution."

Some basic questions:

1. Name (get correct spelling, if needed)
-

2. Job title at time of closure

3. Have you been involved in other base closures

4. Current job title, address, phone #, and email address:

Get a business card if possible

Notes -

(Additional protocol dialogue during the interview is noted in parentheses)

Opening Questions

(Let's start with some basic questions about wildlife on the base)

1. Do you think that base wildlife populations are better off, worse off or about the same as when the Air Force managed the site?
 - a. Why?
2. In your estimation, is the current amount of wildlife habitat being preserved the same, more, or less than was originally being preserved by the Air Force?
3. In your opinion, does the base landscape represent a unique or valuable habitat in regard to the local area?
 - a. Is this land worth preserving?
 - b. Why or why not?

(Now, I am going to ask some land use planning questions)

4. In your estimation, what do you think were key issues in base reuse planning?
 - a. How do you think the resolution of these issues affected the status of base wildlife?
5. Would you say that the working relationships between base personnel, BRAC, the Reuse Committee, and the local community were generally cooperative and productive, adequate to the task, or essentially dysfunctional?
 - a. Why do you think it was like that?
 - b. Did you see any change over time?
6. Would you describe the relationship between the federal, state, and local governments as effective and cooperative, adequate, or barely functional?
 - a. Why do you think it was like that?
 - b. Did you see any change over time?

- c. Do you recall which, if any, federal agencies requested land and what they wanted the land for?
- 7. What neighborhood organizations and special interest groups seemed to be involved in the reuse discussion?
 - a. Why do you think these groups were involved?
 - b. Do you think the local community was unified in what they wanted done with this property, and did they present a cohesive front early in the planning process?
- 8. Did you think that group interaction between all parties was relatively equal, or did one party or group of parties seem to dominate?
 - a. If so, who were they and why do you think they did?
- 9. Do you think the effect of local land use planning on the status of wildlife is strong and direct, moderate and indirect, or that there is basically no relationship?
 - a. Why?

Indicator questions

(Here I ask some questions about the local community and the reuse committee planning process.)

10. Would you say that the local community's environmental concerns and their willingness to act on them in regard to base closure issues was very high, high, medium, moderate, low, or very low?

a. Why would you describe it that way?

11. Do you recall which environmental and wildlife conservation groups (if any) were involved in reuse discussions?

a. Why do you think they became involved?

12. Would you describe base reuse planning as very open, moderately open, moderately closed, or basically inaccessible?

a. Why would you describe it that way?

13. Were there members of the general public (such as local citizens not holding a government job but maybe a neighborhood representative) in a decision-making position, in some part of the planning process which developed the base reuse plan?

a. If so, who were they?

b. Why were or were not such persons involved?

14. Do you think that the decisions made by the reuse committee usually treated everyone fairly? (yes or no)

a. Why or why not?

15. Do you think that these decisions were usually good ones?

a. Why or why not?

b. Do you feel that public comments were openly received, or did the reuse committee basically ignore these comments when they did not coincide with their own redevelopment vision?

16. Would you call this reuse planning a democratic process?

a. Why or why not?

17. What do you think were the regulations that had the most direct influence over the closure and reuse planning process?

a. Why?

Specific Information Questions

Here I list the specific information questions that I asked different individuals based upon the position that they held during the closure:

- The DoD Base Conversion Agency (BCA) site manager & environmental coordinator,
- Military Natural Resource Manager at time of closure,
- The chair of the reuse committee,
- Local citizens
 - A local neighborhood representatives
 - An environmental interest group representative
 - A local business leader
 - A journalist
- The base liaison officer (base transition coordinator)
- The chair and/or executive director of the local redevelopment authority

The same information question is asked in more than one group to provide a means to double-check the information. All of these information-specific questions will begin with the number 18.

Specific information questions for Base Conversion personnel:

18. To the best of your knowledge, is there any federally listed threatened or endangered wildlife species on this land?

If so, please describe them.

19. How do you think the existence of these species (if any) affected reuse planning?

20. In your opinion, is the current amount of wildlife habitat generally adequate for the base wildlife?

a. Why or why not?

Specific information questions for natural resource managers:

18. In your opinion, does the base landscape represent a unique or valuable habitat in regard to the local area?

Why or why not?

19. In your opinion, is it worth preserving?

a. Why or why not?

Specific information questions for Reuse Committee Chair and/or executive director:

18. What was the exact title of your reuse committee? When was it created, and was it disbanded when a redevelopment authority was established?

19. Could you please describe how this reuse committee was organized, paying particular attention to subcommittees and public participation practices?

20. What measures, if any, were taken to ensure continuity from the reuse committee to the redevelopment authority?

Were there positions transferred from one organization to another?

If so, how many and which ones?

Who transferred from one organization to another?

Specific information questions for the local neighborhood representative:

18. How many and what types of local community organizations seemed to be involved in the redevelopment of the base.

19. Which organizations had a position on the reuse committee and/or redevelopment authority?

20. Do you think that the reuse committee took all reasonable measures to ensure adequate public involvement in their decision-making processes?

Why or why not?

21. By what means was the public informed of upcoming reuse committee meetings?

Was there a website or other information outlets (e.g., local library or community center) where local residents could go to get meeting locations, times, and other base closure information?

Were meetings generally held at a time and place that was convenient for local residents to attend?

Specific information questions for the environmental group representative:

18. Besides your own organization, do you recall what other environmental interest groups took part in the redevelopment discussions?

Do you have contact information for these groups?

19. Do you think that the current amount of wildlife habitat being preserved is more, the same, or less than was originally on the base?

Why or why not?

20. How do you think the local economy affected wildlife preservation issues during the redevelopment of the base?

Specific information questions for the local business leader:

18. How do you think the local economy affected wildlife preservation issues during the redevelopment of the base?

19. Do you think that the reuse committee took all reasonable measures to ensure adequate public involvement in their decision-making processes?

Why or why not?

20. By what means was the public informed of upcoming reuse committee meetings?

Was there a website or other information outlets (e.g., local library or community center) where local residents could go to get meeting locations, times, and other base closure information?

Were meetings generally held at a time and place that was convenient for local residents to attend?

Specific information questions for the local journalist:

(I always tried to interview the journalists first to give me other good leads)

18. In your coverage of base reuse, did you find that people felt that the amount of wildlife habitat being preserved was more, the same, or less than was originally on the base?

Who thought it was more, the same, or less and did they think it was adequate for base wildlife?

19. Who do you think were the most significant figures in the redevelopment of the base?

Why were these people so important?

Do you have contact information for these persons?

The base liaison officer (base transition coordinator)
(There were no extra information questions for the base liaison officer; in this way I was able to double-check if the extra information questions were producing useful information. In other words, the liaison officers acted as a control group)

Specific information questions for the Chair of the redevelopment authority:

18. What was the exact title of the redevelopment authority and when was it created?
19. Could you please describe how the redevelopment authority was organized, paying particular attention to subcommittees and public participation practices?
20. What measures, if any, were taken to ensure continuity from the reuse committee to the redevelopment authority?

Were there positions transferred from one organization to another?

If so, how many and which ones?

Who transferred from one organization to another?

Closing questions and comments

Are there any other questions I should have asked but did not?

Who else should I interview?

May I contact you if I need too, and may I use your name?

Thank you, and please let me know if there is anything I can do for you.

Interview Consent Form

This interview will only be used to support my (Tom Williams) dissertation concerning wildlife preservation at military closure bases. The information generated from this interview will be strictly for my use and will be used only to assist in the writing of this dissertation. If, at any time, you feel uncomfortable with the interview questions or procedures, you may stop the interview and/or cancel it all together.

Signature of Interviewee _____

APPENDIX B

INTERVIEWEE DATA

I interviewed 30 people in 28 interviews (7 were pilot study interviews at Lowry). Six interviews were by phone. I could not tape record four of the interviews. These interviews were recorded by hand written notes. The interviews lasted 45 minutes on average, and I was able to interview representatives of all groups, although I failed to get military natural resource manager positions at Pease or Myrtle Beach (I was the natural resource manager at Lowry). However, since the closure personnel that I interviewed at Pease and Myrtle Beach had also worked for their base's environmental office (and with their respective military natural resource managers) before the base closed, they also provided sufficient knowledge in this area. Therefore, I also asked them specific military natural resource information questions. Along these lines, whenever I interviewed someone who worked in more than one position, I made sure to ask all respective information questions. The next two pages present a spreadsheet of the interviews showing the number of interviews (correlating to 1st, 2nd, etc.), the name of the interviewee, the base, the position at time of closure, the date, whether taped or not, in person or by phone, and if other people were interviewed at the same time.

Interviewee Data									
#	Names	Base	Stakeholder Group	Position Title	Date of Interview	Tape	Phone or In Person	Other persons in Interview	
1	Tony Perez-giese	Lowry	NGO	Journalist, Westword	3 Aug 98	No	Person	None	
2	Larry Beach	Lowy	Close	Liaison Officer	5 Aug 98	Yes	Person	None	
3	Anne Callison	Lowry	NGO	President, George Washington Home Owners Association	6 Aug 98	Yes	Person	None	
4	Warren Simmions	Lowry	NGO	Executive Director, The Colorado Golf Association	7 Aug 98	Yes	Person	None	
5	James Meadows	Lowry	Reuse	Executive Director, Lowry Economic Reuse Project & Executive Director	10 Aug 98	Yes	Person	None	
6	Beth Gibeau	Lowry	Close	Lowry Redevelopment Authority Environmental Coordinator, Base Conversion Agency	17 Aug 98	Yes	Phone	None	
7	Kay Miller	Lowry	Reuse	Executive Assistant, Lowry Economic Reuse Project & Lowry Redevelopment Authority	27 Aug 98	Yes	Phone	None	
8	Dick Jones	Pease	Close	Conversion Agency Site Manager	15 Sept 98	Yes	Person	None	
9	Peggy Lamson	Pease	Reuse	Selectman, City of Newington	15 Sept 98	No	Person	Thomas Morgan	
9	Thomas Morgan	Pease	Reuse	Planner, City of Newington	15 Sept 98	No	Person	Margaret Lamson	
10	Susan MacDonald	Pease	Reuse	Executive Assistant, Pease Redevelopment Commission & Executive Assistant, Pease Development Authority	15 Sept 98	Yes	Person	None	
11	Skip Jones	Pease	Reuse	Executive Committee Member Pease Redevelopment Commission & Executive Director, Redevelopment Authority	17 Sept 98	Yes	Person	None	
12	Christine Gillette	Pease	NGO	Journalist, Seacoast Newspapers	17 Sept 98	Yes	Person	None	
13	Peter Bresciano	Pease	NGO	Member, New Hampshire VOICE	17 Sept 98	Yes	Person	None	
14	Sharon Vaughn	Pease	NGO	Refuge Manager, Great Bay National Wildlife Refuge, U.S. Fish & Wildlife Service	18 Sept 98	Yes	Person	Ward Feurt	
14	Ward Feurt	Pease	NGO	Refuge Complex Manager, U.S. Fish & Wildlife Service	18 Sept 98	Yes	Person	Sharon Vaughn	

15 Richard Gsoettschneider	Pease	NGO	President, RKG and Associates	18 Sept 98	No	Phone	None
16 Arthur Ditto	Pease	Close	Environmental Coordinator, Conversion Agency	21 Sept 98	Yes	Person	None
17 Kirk Stone	Pease	NGO	Environmental Affairs Director	22 Sept 98	Yes	Person	None
18 Dick Souza	Myrtle B.	Close	Audubon Society of New Hampshire	13 Oct 98	Yes	Person	None
19 Fred Glover	Myrtle B.	Reuse	Environmental Coordinator, Conversion Agency	13 Oct 98	Yes	Person	None
20 Clifford Rudd	Myrtle B.	Reuse	Director of Economic Development Myrtle Beach Air Base Redevelopment Authority Planning Coordinator Myrtle Beach Redevelopment Task Force & Executive Director, Air Base Redevelopment Commission Senior Person in charge of Real Estate, Burroughs & Chapin Properties	13 Oct 98	Yes	Person	None
21 Marshal Smith	Myrtle B.	NGO	Myrtle Beach City Council Member Secretary to the Task Force and Redevelopment Commission Executive Directors, & Director of Finance Redevelopment Authority	14 Oct 98	No	Phone	None
22 John Maxwell 23 Betty Ballou	Myrtle B. Myrtle B.	NGO Reuse	Myrtle Beach City Council Member Secretary to the Task Force and Redevelopment Commission Executive Directors, & Director of Finance Redevelopment Authority	14 Oct 98 15 Oct 98	Yes Yes	Person Person	None None
24 Edsel DeVille 25 Mary Eaddy 26 David Wren 27 Betty Bullock	Myrtle B. Myrtle B. Myrtle B. Myrtle B.	Reuse NGO NGO NGO	Chair, Redevelopment Task Force President, Wordsmith Inc. <i>Business Editor, The Sun News</i> Conservation Chair, Sierra Club Winyah Group	15 Oct 98 15 Oct 98 16 Oct 98 7 Nov 98	Yes Yes Yes Yes	Person Person Person Phone	None None None None
28 Richard Williams	Myrtle B.	Close	Conversion Agency Site Manager	18 Nov 98	Yes	Phone	None

APPENDIX C

REQUEST TO USE COPYRIGHTED MATERIAL

TO: Mr. Richard Williams

DATE: 19 May 1999

FROM: Capt. Tom Williams, 2029 W. 36th Ave Unit F
Denver CO, 80211, (303) 477-0624
Fax to -- Attn: Tom Williams (303) 556-5971

I seek permission to reprint the following material from your publication.

AUTHOR: United States Air Force

TITLE: Record of Decision, Final Environmental Impact Statement
Disposal and Reuse of Myrtle Beach Air Force Base, January 1993

MATERIAL REQUESTED:

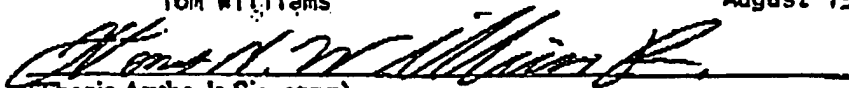
Exhibit 4, Regional Map of Myrtle Beach Air Force base, showing
parcels of land for transfer.

(Copy attached for your references)

This material is to be reprinted in the following thesis:

TITLE: Pave it or save it: Wildlife preservation planning under the
Base Closure and Relignment Act.

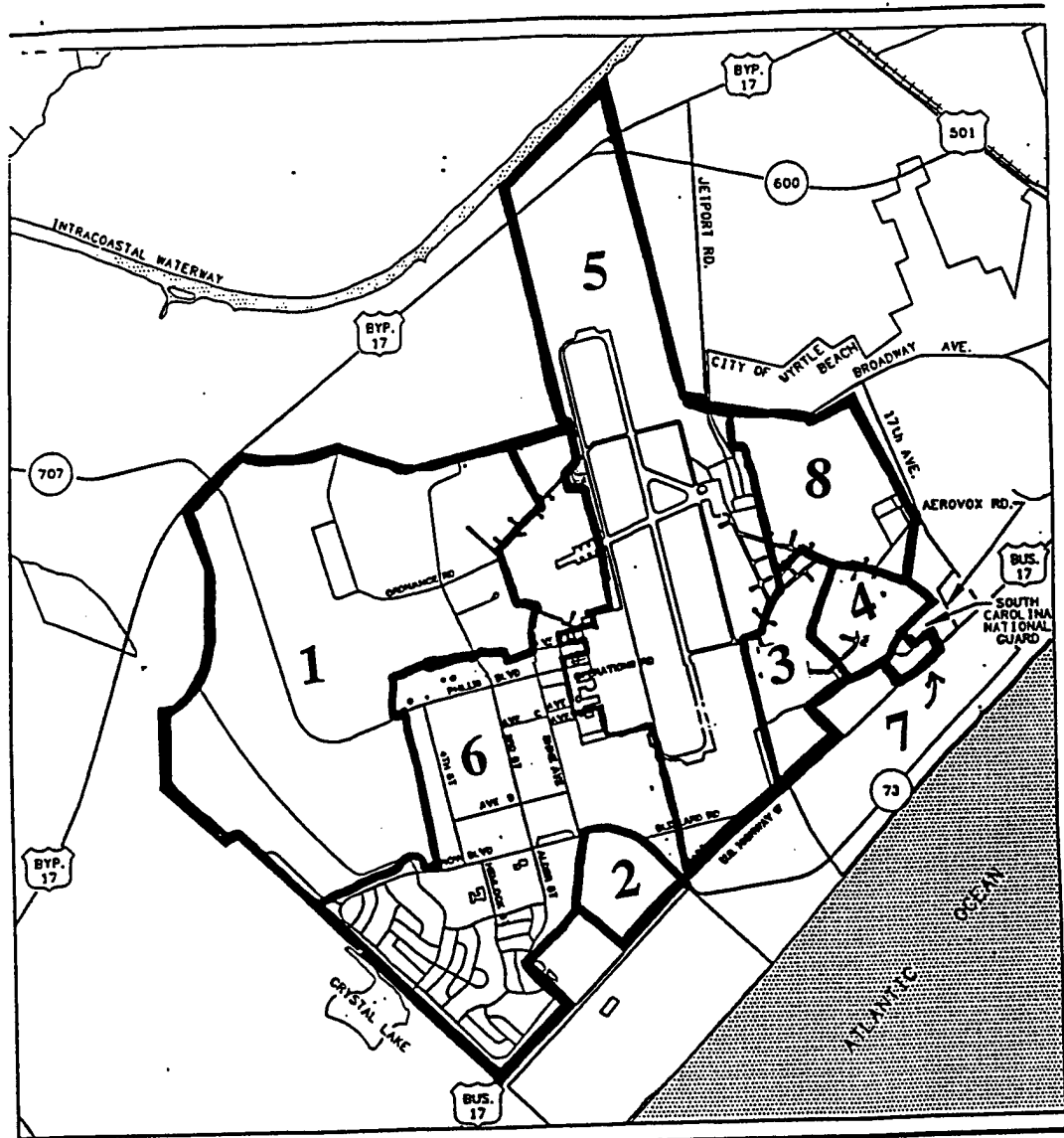
AUTHOR: Tom Williams EST. PUBLICATION DATE: August 1999


(Thesis Author's Signature)

RICHARD H. WILLIAMS, JR., Site Manager, AFBGA/DA Myrtle Beach
PERMISSION GRANTED BY (please type name and title):

CONDITIONS:


(Signature and date) May 20, 1999



PARCELS 1, 2, 3, 4 Proposed Land Exchange Parcels

PARCEL 5 Proposed Public Airport Conveyance

PARCELS 6, 7, 8 Proposed Conveyance by Negotiated Sale

**DISPOSAL PARCELS
FOR MYRTLE BEACH AFB
PROPERTY**

**MYRTLE BEACH AFB,
SOUTH CAROLINA**

0 1000 3000 feet



Exhibit 4

APPENDIX D

MYRTLE BEACH INTERVIEW QUOTES

A) The restricted choice characterization of the theme park development:

Oh, they have been, they've been very organized [early on], legally, planning wise, yes. (NGR-BB 1998, 10)

That was strange because it went on -- the city and county were discussing, you know, how we should be using the base for, whether it was going to be an airport or not or what. And then one day, the governor's assistant, his economic development people came to town, called a press conference, said that they had negotiated a land swap with the Air Force in Sumter and that they would be getting control basically of the base, and they were going to let Santee Cooper, the state owned utility here, sort of take care of the property, and negotiate with developers and sell property. And so it sort of took the city and county out of the loop. (NGR-DW 1998, 5)

It was done early, early, early on. Yes it was. (Close-DS 1998, 10, para.)

B) The base land, which was going to be a theme park, should be preserved because it the largest chunk of undeveloped land remaining in the city of Myrtle Beach --
Interview Question 3:

I do. I do because of, partially because of all the development that is going on and has been going on around us. We're losing all, not just from habitat for wildlife but just for the greenery effect and having areas broken up with forestry. (Close-DS 1998, 2)

Oh absolutely, it is probably the most unique, because of its mere size. The fact that it's probably the largest single track of land within the city limit's that remains undeveloped, one of the largest. So that, in itself, makes it quite unique. (Reuse-FG 1998, 2)

Because there's so little of it left around here. There's very little woodland area, and it's being cleared out rapidly now with this extreme growth that we have. (Reuse-BB 1998, 2)

Because of this, since it pretty much represents some of the last undeveloped area... (NGR-BB 1998, 1, para.)

C) The interviewees continue to look at wildlife as having an anthropocentric value
-- Interview Questions 3 & 9:

However, again on one of the things they have looked at and would like to do is some type of a park, greenery arrangement, but not wildlife; nothing has been mentioned for wildlife habitat.... Now, a lot of people would want them to leave the trees in place and so forth, and the greenery in place. (Close-DS 1998, 11)

... to certainly reduce the detrimental effects to some extent. How far remains to be seen.... his desire to have a very large active and passive park out on the, on our property here because it's just active, the recreational areas right here, but to having a minimum 200-acre park has been written into the basic land plan for the remaining unimproved property out here. And that may help some because they'll be a lot of, as you will, passive areas, particularly in the wetlands, the wetlands areas, that sort of thing.
(Reuse-FG 1998, 3)

All land's worth preserving, but there's nothing unique about it that requires preservation. It's part of a city; it's part of a municipality, and it's, you know, it should be developed as part of the city. (Reuse-CR 1998, 2).

Well, I mean, I'd love to see the, a lot of the greenery preserved, and that was one of the things that we had in the overall redevelopment plan, was in the redevelopment, that was going to be one of the priorities. (Reuse-ED 1998, 1)

And some of it is being considered for parkland for the city, so, that would serve as wildlife preservation. (Reuse-BB 1998, 2)

No, there is no wildlife at that base. There's not even deer living on the base; they just swim over in the hunting season to get away from hunters. (NGR-MS 1998, 1, para.)

But one of the issues, that I know the city's brought up, is we need more parks. And they were interested in preserving some of that land for parks. I don't know how they are going to configure the parks, how the parks are going to be, but I would imagine that issue would affect some wildlife preservation somewhere. (NGR-ME 1998, 8)

...our golf course, which is a little over 250 acres, is a wildlife preserve. The Audubon area, it's a natural wildlife preserve, and it will stay that way. We don't cut grass outside of the fairways. And we do it in a natural state. We don't weed. The ditches, you know they'll grow full briars, and we leave the full briars because that's the agreement we made with the Park Service to maintain the natural setting. (NGR-JM 1998, 7)

The environmental issue never got to be an issue, and I think it didn't because you know I heard the local residents jumped up and down when they talked about putting a theme park out there because it's tearing down the trees. But pine woods don't really have a lot of value here. They didn't see it as going in and, say, tearing down the natural forests. And then again, environmentally it was a clean base too. It wasn't a Superfund site. (NGR-JM 1998, 17)

The best we can hope to get at the base is the preservation of some green areas, open space, and the establishment of some wildlife corridors. (NGR-BB 1998, 11, para.)

...I think that there's a big movement coming up to preserve it either as park land or recreational space or open space because residents of Myrtle Beach don't have much of that. (NGR-DW 1998, 2)

D) This land is now unique (as of 1998) because it is the largest remaining portion of undeveloped land in Myrtle Beach City -- Interview Question 3:

1. I do. I do because of, partially because of all the development that is going on and has been going on around us. We're losing all, not just from habitat for wildlife but just for the greenery effect and having areas broken up with forestry. (Close-DS 1998, 2)

Because there's so little of it left around here. There's very little woodland area, and it's being cleared out rapidly now with this extreme growth that we have. (Reuse-BB 1998, 2)

Because of this, since it pretty much represents some of the last undeveloped area... (NGR-BB 1998, 1, para.)

Yes. Because it's undeveloped. There's hardly any undeveloped land in Myrtle Beach City. And so you've got about 1,000, 1,500 acres out there that still got no condos or hotels or retirement communities on it. (NGR-DW1998, 1)

E) The excellent federal, state, and local governmental relationships -- Interview Questions 5 & 6:

Excellent. I mean it's just -- I hear some stories going on at other bases, and we have just a tremendous working relationship with all them, really. The local redevelopment authority we've worked closely with, especially lately, because we've been doing the transfers. And it's just been tremendous. I mean if they have a problem, they come to us first without, you know, trying to get, some of the bases make it a political issue, and our redevelopment authority comes to us; if we have a problem we solve it. To me I think that's one of the highlights of Myrtle Beach is the fact that we have had such a good relationship. (Close-DS 1998, 4)

We had a pretty good relationship.... They [the state] were very good to work with. All along, the state was good to work with. (Close-RW 1998, 3)

Great, no problem. (Reuse-CR 1998, 8)

I would say, certainly, that base personnel and BCA personnel were tremendous because they were a lot of the same people.... And the relationship between the authority, and I'll say the Commission/Authority and BCA has been excellent. That sort of thing. Our relationship, the authority's relationship with the city, has been excellent. (Reuse-FG 1998, 5)

Between federal, state, and the city was pretty good.
(Reuse-ED 1998, 4, para.)

Oh no. I don't think they were dysfunctional at all. I think that we had a good working relationship with them and still do. We were always able to get to the people that we needed to talk with. The conversion agency here has been very helpful: they have always -- they're looking towards moving forward with it and not delaying anything themselves. (Reuse-BB 1998, 5)

The Air Force personnel were very professional.
(NGR-MS 1998, 1, para.)

I think so [good federal IGRs]. Of course, you know as well as I do that the Air Force is under tremendous time frame burden, plus logistically they have a lot of work to do. I mean, a lot of work to do. (NGR-JM 1998, 4)

For the most part good. (NGR-DW 1998, 3)

F) The city/county relationship was poor -- Interview Questions 5 & 6:

It was just that the biggest problem came between the city and the county. And that created a problem more for the Air Force because we couldn't get anybody to agree. And we didn't know who to talk with. (Close-RW 1998, 3)

And the county has always operated the airfield, handled all the commercial aviation. And the biggest issue that came up was the size of the airfield. The county basically wanted almost all of the base for airfield operations. They wanted to develop a second runway at a later date and they were really looking at the full instrument runway. And you know, and all of the supporting facilities that would go with that. As the growth progressed, it would be hangers, maintenance areas, things of that nature. And the city disagreed with that. The city did not agree with building a larger airport. They did not agree with the county receiving all of this land. And that was the big issue. And it got so intense I guess you would say that the Air Force finally went to the governor and asked the governor, 'Who do we talk to at Myrtle Beach? Who represents the community?' because there was such a dispute between the city and the county. (Close-RW 1998, 1)

You know you have -- see there was no authority here. They had a, initially, they had a Task Force that came up with the redevelopment plan. And then following that, when they completed their job, they tried to form a redevelopment commission. And it was supposed to be made up of representatives from the city and the county. And the county refused to participate in that. So the city carried it forward for awhile, and they appointed some members who were from out in the county. But unfortunately that authority had no authority -- I mean commission had no authority. They couldn't buy and sell and enter into contracts. They had to work all that through the city of Myrtle Beach. And so it was -- well it got everything moving when the state legislature created the redevelopment authority. (Close-RW 1998, 3)

Yeah, it was between the county and the city for quite awhile because of the city, well, wanted to develop the land or wanted to have the opportunity to develop the land to create jobs, create a tax base and what else. The county wanted the whole property, the whole air base to turned directly over to them... (Close-DS 1998, 5)

I mean, between the two local governments, there was tremendous conflict here between the city and the county governments over what the reuse plan should be. And it stemmed from underlying conflict over who was in charge of this land once the Air Force would go away, whose land, you know, who should control it. (Reuse-CR 1998, 2)

But for whatever reason, here in Myrtle Beach, the city and the county got into this struggle over how the land should be planned. And the conflict, the genesis of the conflict, involved the airport. (Reuse-CR 1998, 3)

We had the city and the county fighting over what should be done out there. (NGR-ME 1998, 3)

The county dominated what was going on. (NGR-JM 1998, 6)

At the time, barely functional. (NGR-DW 1998, 4)

The only people who did not get along were the city planners who wanted to dictate the entire process. The Air Force should have gone along with the county and the FAA's plan for a regional hub.... However, the problem with this base was political, between the city, county, and state. (NGR-MS 1998, 1, para.)

G) Regulations were more of an implementation issue -- Interview Question 17:

...the environmental portion of it drives it. It drives the -- it's the long pole in the tent with property disposal. (Close-RW 1998, 8)

The environmental regulations had a lot to do with the implementation, of trying to dispose of the land. (Close-RW 1998, 9, para.).

The environmental regulations were more of an issue of implementation. You know, these were things that you had to pay attention to when you're trying to implement the plan. But when you were writing the plan, it was pretty much virgin territory so speak. (Reuse-ED 1998, 14, para.)

It [property disposal regulations] had more to do with how you implemented the plan and how you got the land away from the Air Force, from the federal government to the local government. (Reuse-CR 1998, 16)

But from regulations in terms of new construction, if we go beyond that to federal or state, we had really an amazingly good transition when we were having to deal with the Air Force, particularly when we had a master lease on this. I was sub-leasing properties, you know, before we transferred it. (Reuse-FG 1998, 13)

H) Environmental activism seen as low -- Interview Question 10:

And in general, the whole area, because of development, I think people have written off wildlife in the area. (Close-DS 1998, 11)

Very low. (Close-DS 1998, 11)

...think they're very well resigned to the fact that we're not going to have a lot of habitat for the wildlife. (Close-DS 1998, 12)

I'd say low. You're getting my personal opinion of course. (Close-RW 1998, 6)

I'd say low. (Reuse-FG 1998, 5)

No. (Reuse-CR 1998, 14)

...we're down the tubes. (Reuse-ED 1998, 9)

I don't recall any at all. (Reuse-BB 1998, 9)

Low. (NGR-DW 1998, 9)

But if you look around and you see all this development taking place, if people are moving here, obviously they're not moving here for wildlife. (NGR-DW 1998, 15)

That's [wildlife protection] not really that big of a concern I don't think. (NGR-DW 1998, 16)

Maybe this area's maybe not attracting the environmentalist.
(NGR-BB 1998, 6)

That's probably it. We're organized, but we can't seem to get very many people to join, to stay with us. (NGR-BB 1998, 6)

I'm still here. I would characterize it as alive and well but needing more volunteers and more activism. (NGR-BB 1998, 13)

Low. (NGR-MS 1998, 1)

Low concern. (NGR-JM 1998, 7)

Very low. (NGR-ME 1998, 5)

I) Wildlife viewed in an anthropocentric light -- Interview Questions 3 & 9:

However, again on one of the things they have looked at and would like to do is some type of park type greenery arrangement but not wildlife; nothing has been mentioned for wildlife habitat. (Close-DS 1998, 11)

Yeah, they're working over there and got a couple of areas over on the golf course that they're trying to work with the Audubon Society, you know, to set up like a, I guess you would say a bird management area. (Close-RW, 4)

But again, and I got to report back to Mr. Walker [a Myrtle Beach City planner] his desire to have a very large active and passive park out on the base.... And that may help some because there'll be a lot of, as you will, passive areas, particularly in the wetlands, the wetland areas, that sort of thing. (Reuse-FG 1998, 3)

No. It's just part of the community. There's nothing physically unique about it.... All land is worth preserving, but there's nothing unique about it that requires preservation. It's part of the city, it's part of the municipality, and it's, you know, it should be developed as part of the city. (Reuse-CR 1998, 1-2)

Not unique, no. (Reuse-ED 1998, 1)

And some of it is being considered for park land for the city, so, that too would serve as wildlife preservation. (Reuse-BB 1998, 2)

...our golf course [on Myrtle Beach Air Force Base], which is a little over 250 acres is a wildlife preserve. The Audubon area, it's a natural wildlife preserve and it will stay that way. (NGR-JM 1998, 7)

They didn't see it [the theme park] as going in and saying tearing down the natural forest or you know some of this kind of land. (NGR-JM 1998, 17)

But one of the issues that I know the city's brought up is we need more parks.... I don't know how they're going to sort of figure the parks, how the parks are going to be, but I would imagine that that issue would affect some wildlife preservation somewhere. (NGR-ME 1998, 8)

J) Low level of environmental activism as evidenced by the lack of environmental groups taking part in the reuse discussion -- Interview Question 7:

No, I don't recall it from a group as such. No, I don't recall too much, I want to say organized interest. (Close-DS 1998, 8)

No. I don't remember any environmental group taking us to task, even coming in and, you know, representing a particular group. (Reuse-ED 1998, 9)

Actually, I don't think there were any special groups. (Reuse-CR 1998, 8-9)

Not to my knowledge. Not unless the Audubon Society did and I don't believe they did. (NGR-BB 1998, 11)

No, I didn't notice any, any local neighborhood organizations... (NGR-ME 1998, 4)

K) Environmental groups did not become involved because of the lack of community organization and political action, or why a preservation coalition did not get formed -- Interview questions 7, 7b, 10, and 11:

because a lot of these people have come from other areas where people weren't allowed to do that sort of thing, and they just don't understand why our laws don't protect against this sort of development. (NGR-BB 1998, 5)

It still seems to be the business people that are running the show here. There's just so much going on; the retirement community is so involved with enjoying their retired life, they don't get out for some of these meetings. They're not active enough. (NGR-BB 1998, 6)

But the people who want to preserve the wildlife out there, it's an interest for them that they have to do outside of making a living. And that's definitely been my situation. I've spent, I mean I'm sure that my income has suffered because of the amount of time I spend on it [wildlife preservation issues]. But it's so near and dear to my heart... (NGR-BB 1998, 7)

The people that have been here just a short while, maybe even just as short as five years and longer, are not necessarily in that. (NGR-BB 1998, 8-9)

I think a lot of people have moved here that didn't really have a stake in the base's outcome. (NGR-DW 1998, 4)

you've got the situation where people are moving here, you know, like I said that don't really have a stake in the community. There's no people who've lived here for 40 or 50 years.... Maybe that was the reason that they weren't too concerned about it because it hadn't really been a part of their lives at that point. (NGR-DW 1998, 8)
People move here from all kinds of different places and they don't really see Myrtle Beach as home.... And so, I think that lack of community is maybe what has, the towns people sort of look the other way at the development and not really care that much about wildlife preservation. (NGR-DW 1998, 15)

L) Continued lack of environmental interest groups involved in the reuse discussion
-- Interview Question 7:

No, I don't recall it from a group as such. No, I don't recall too much; I want to say organized interest. (Close-DS 1998, 8)

No. I don't remember any environmental group taking us to task, even coming in and, you know, representing a particular group. (Reuse-ED 1998, 9)

Actually, I don't think there were any special groups. (Reuse-CR 1998, 8-9)

Not to my knowledge. Not unless the Audubon did, and I don't believe they did. (NGR-BB 1998, 11)

No, I didn't notice any, any local neighborhood organizations...
(NGR-ME 1998, 4)

M) The story of how a local neighborhood prevented the construction of a new condo complex:

Now that all the trees are being cut down, you're starting to see people come out and say, 'hold on a minute; let's just slow down.'
(NGR-DW 1998, 8)

I know that recently community groups have been able to put pressure on local government to stop development for about the first time. That was just a few weeks ago. Some guy wanted to build a condo. And the neighborhood showed up, and they had several meetings, and they had to use the convention center. They had to go here; they had to go there. Everywhere they went, the developer kept appealing the decision. And they'd go to a new venue; these people followed, and they voiced their concerns. And finally the city said, 'no, you can't build.'... you're starting to see that type of community activism against growth now, and it's starting to work. (NGR-DW 1998m 14)

The system seems to move along pretty dog-gone well. Now there are a lot of citizens that have really raised a question and complaints about the development. The way the development's taken place, the bad neighbor type decisions that are being made. The amount of woodlands that are being cut down -- because a lot of these people have come from other areas where people weren't allowed to do that sort of thing, and they just don't understand why our laws don't protect against this sort of development.
(NGR-BB 1998, 5)

I mean they're doing what they can; in fact, they have called the city to task. A condominium complex was going to go up in a neighborhood area, and by law they can put it there. I had to go through, it was a very large one, I mean like 14 stories or something like that. And the first six stories were going to be a parking garage.... they had to get it approved through the community appearance board first and then through the zoning board. Well the community appearance board has turned it down twice, and the zoning board has turned it down once. And it goes before the zoning board again on Tuesday night. Well it just keeps going through the same board. It shouldn't -- why does it go through another time? If it gets turned down again, they're already suing the city for not allowing it. It will probably just go through another time. Eventually it will get approved.... But this is amazing that they stopped this particular project, it's because, all these citizens that come to these meetings that are against it. And most of those citizens are within the immediate neighborhood that this is going to be built.... I mean they've moved the meetings; they've had the meetings in these odd ball places that are hard to get to. And it's just been the strangest thing. And yet they keep having ... so I guess what it is, when the environmental community wins something, your win is temporary.... We had to keep fighting the same battle, over and over and over again. It never seems to be won, permanently. (NGR-BB 1998, 9)

N) Lack of community organization and political action -- Interview Question 7b:

In some ways I'd say more; they were more resigned to what was going on I'd say... (Close-DS 1998, 9).

Well the city, I'd say no. (Reuse-CR 1998, 12)

They were not able to get a united front and get a consensus from the community to go ahead with one plan. (Reuse-BB 1998, 3)

No. Not early in the process. There was no cohesion whatsoever. (NGR-JM 1998, 5)

There's a lack of interest in the community about what happens to the base. (NGR-JM 1998, 9)

I think -- I got the feeling that people didn't really want another theme park. But I didn't see a whole lot of opposition to the theme park. (NGR-DW 1998, 5)

Apathy. (NGR-DW 1998, 8)

They had no clue. (NGR-ME 1998, 4)

But I'm afraid they're not as organized. (NGR-BB 1998, 6)

O) Low level of community organization and political action based upon poor population stability because of the transient and "newly arrived" character of the local population:

...because a lot of these people have come from other areas where people weren't allowed to do that sort of thing, and they just don't understand why our laws don't protect against this sort of development. (NGR-BB 1998, 5)

The people that have been here just a short while, maybe even just as short as five years and longer, are not necessarily in that. (NGR-BB 1998, 8-9)

I think a lot of people have moved here that didn't really have a stake in the base's outcome. (NGR-DW 1998, 4)

People move here from all kinds of different places and they don't really see Myrtle Beach as home....And so, I think that lack of community is maybe what has, the towns people sort of look the other way at the development and not really care that much about wildlife preservation. (NGR-DW 1998, 15)

P) Open to public participation -- Interview Questions 12 & 16:

I think it was pretty open. They had a lot of public meetings because I attended most of them. Right when the original task force was, when they had public meetings, a number of them. And then when the commission was created, all of their meetings were open. And the authority's meetings of course are all open. (Close-RW 1998, 7)

They have meetings every, well, at one point it was just about every week and then every other couple of weeks. (Close-DS 1998, 13)

...we had over 50 open sessions with the community.
(Reuse-ED 1998, 3).

We always had, at our board meetings we always had a lot of people from the community who would come to the meetings. It was always, usually, the same people who came.
(Reuse-BB 1998, 7).

Because we expended much time and energy to draw people into our meetings. We went to great extent, you know, great efforts to include the public. I mean we did a lot of participation. You know, you can go back and look at our files and stuff. We had meetings; some of them we had a couple of hundred people there. You know.
(Reuse-CR 1998, 14)

It was very open. We had hearings. We advertised those and got great free media before, during, and after those.
(NGR-ME 1998, 5).

They did a good job I think. (NGR-MS 1998, 15, para.)

They were open meetings. (NGR-DW 1998, 9)

Q) Fair -- Interview Questions 8 & 14:

They did a poll, you know of people, public meetings and everything to see what they wanted. And they pretty much on that initial redevelopment (by the Task Force), they pretty much tried to honor that. (Close-RW 1998, 8)

I don't think anybody dominated. The county tried to. The county tried very hard to. (Close-RW 1998, 5)

Yeah. Yeah, I'd say they did. I'd say they were pretty open-minded. (Close-DS 1998, 14)

Yeah, I think they were pretty fair. (Reuse-CR 1998, 15)

I don't think, I don't think anybody dominated.
(Reuse-BB 1998, 7)

It seemed to be fairly even. (Reuse-BB 1998, 8)

Even more fairly in some cases. I know we leaned over backwards to one group -- it was concerned citizens about airport expansion. And they were very highly regarded citizens. One was a city councilman (John Maxwell), and one was a past mayor. Another was a retired FAA person. (Reuse-ED 1998, 9)

Well the county started out with the upper hand because they had in essence done a plan even before the Air Force announced they were going to close the base, based on a previous rumor [of base closure]. In the end the city seemed to get the upper hand. (Reuse-ED 1998, 9)

Yeah, that's exactly what I was saying [that it was fair]. (Reuse-FG 1998, 10)

Well I thought they were very fair, once they set the process up, yes. (NGR-ME 1998, 6)

In summary, the Task Force tried to treat everyone fairly...
(NGR-MS 1998, 2, para.)

R) Competent -- Interview Question 15:

Yes, I think they were good decisions. (Close-RW 1998, 8, para.)

Yes. (Reuse-ED 1998, 10)

Uh huh. (Reuse-CR 1998, 15)

Yes. I think that everybody is pretty much happy with the decisions made. Keep in mind, the airport itself is unique. The airport is inside the city, but operated by the county.
(NGR-JM 1998, 10)

I think they were good decisions. (NGR-ME 1998, 6, para.)

Again, the Task Force made good decisions...
(NGR-MS 1998, 2, para.)

S) Low levels of open public participation, fairness, and competence in regard to TPI theme park -- Interview Questions 8, 12, 14, 15, & 16:

And there were mixed feelings about the theme park. A lot of people did not want the theme park coming because of the, again, just more low paying jobs. (Close-DS 1998, 8).

But the problem was it generated friction. If a land swap would have taken place without the TPI entity, it would have been fine. (Reuse-ED 1998, 11)

That was strange because it went on, the city and county were discussing, you know, how we should be using the base for, whether it was going to be an airport or not or what. And then one day, the governor's assistant, his economic development people came to town, called a press conference, said that they had negotiated a land swap with the Air Force in Sumter and that they would be getting control basically of the base, and they were going to let Santee Cooper, the state-owned utility here, sort of take care of the property, and negotiate with developers and sell property. And so it sort of took the city and county out of the loop. (NGR-DW 1998, 5)

The, you know, the state, the governor's office sent a memo to Santee Cooper saying, you know, TPI is going to be given first right of refusal, and basically setting up this theme park developer as the owner of a 1000 acres of land in an Air Force base when this developer had no experience, no financial backing. The only thing they had was connections to the governor's office ... we tried to raise that issue [opening bidding processes for state land] as well, and I never really understood why they said this was exempt from any kind of state bidding process. (NGR-DW 1998, 11)

One party dominated. That was the State. They, pretty much it was sort of a backroom negotiation they made with the Air Force. It was not, I think it caught everybody by surprise when they announced this land swap. And I think that is what kind of put them in the driver's seat. (NGR-DW 1998, 8)

I do not think the Task Force made good decisions. Obviously not. I mean, the base is still sitting there unused five years later. And that centers around the TPI fiasco. (NGR-DW 1998, 11)

T) Continued lack of environmental interest group involvement -- Interview Question 7:

No, I don't recall it from a group as such. No, I don't recall too much, I want to say organized interest. (Close-DS 1998, 8)

No. I don't remember any environmental group taking us to task, even coming in and, you know, representing a particular group. (Reuse-ED 1998, 9)

Actually, I don't think there were any special groups. (Reuse-CR 1998, 8-9).

Not to my knowledge -- not unless the Audubon Society did, and I don't believe they did. (NGR-BB 1998, 11)

No, I didn't notice any, any local neighborhood organizations... (NGR-ME 1998, 4)

U) Perceived worsening of wildlife conditions in the undeveloped area of the base -- Interview Questions 1 & 2:

Worse off. We've transferred the large tract on the West side of the base, and it has now been clear cut. And at one time it was to have been a theme park, so they clear cut it through the state. It was transferred to the state under a land swap. And, of course, now it's sitting idle. (Close-DS 1998, 1)

Well, they're worse off now because a lot of the areas that were heavily wooded have been cleared now. And of course the result of that is just pushed the wildlife, like deer and stuff, further away. (Close-RW 1998, 1)

Yes. Oh yes, it very definitely would [theme park having serious negative impact on wildlife] because, see that area, it was not only a theme park but it was also going to have a huge hotel, some I guess like rental units around a lake, a convention center, a shopping center, a golf course and a number of things like that. If they had done everything that they planned on doing, they would have developed just about all of that property. (Close-RW 1998, 2)

I would have to say it's probably worse off. (Close-FG 1998, 1)

Worse off, the wildlife at the base, which is just bunnies and stuff, would have been better off if the base would have been turned over to the county for an Airport. (NGR-MS 1998, 1, para.)

They may be slightly worse off at this point right now simply because a developer went in and did some clear cutting for some projected development, and it fell through. So we've got some properties that have been opened up, and certainly some habitat may have been lost. And I would say in the long run more habitat will be lost because I'm sure there'll be lots of homes, and a lot of wooded areas, will be taken away. (NGR-BB 1998, 1)

In the future the amount of wildlife habitat will decrease. (NGR-BB 1998, 1, para.)

Probably, I would have to say they're worse off. (NGR-DW 1998, 1)

APPENDIX E

DESCRIPTIVE SUMMARY OF INTERVIEW RESPONSES FOR MYRTLE BEACH AND PEASE

This appendix presents a summary of interview responses broken down by respondent group. I use the number of responses because not everyone interviewed answered every question. Furthermore, I present percentages in this appendix to facilitate easy comparison but only the number of responses is discussed in the paper. This summary of responses excluded questions whose answers could not be quantified (i.e., why or why not?). Furthermore, this summary concentrates on the early reuse planning process for both bases. Therefore, responses to the repeated question "Did you see any change over time?" was not included. Chapters 5 and 6 show how these issues changed over time. This summary does not include the Lowry pilot study interviews or responses to specific information questions.

1. Do you think that base wildlife populations are better off, worse off, or about the same as when the Air Force managed the site?

<u>Pease</u>				<u>Myrtle Beach</u>		
<u>Better</u>	<u>Same</u>	<u>Worse</u>		<u>Better</u>	<u>Same</u>	<u>Worse</u>
50%(1)	50%(1)	0%	Close	0%	0%	100%(2)
75%(3)	25%(1)	0%	Reuse	0%	50%(2)	50%(2)
66.7%(4)	33.3%(2)	0%	NGR	0%	25%(1)	75%(3)
66.7%(8)	33.3%(4)	0%	Total	0%	30%(3)	70%(7)

2. In your estimation, is the current amount of wildlife habitat being preserved the same, more, or less than was originally being preserved by the Air Force?

<u>Pease</u>				<u>Myrtle Beach</u>		
<u>More</u>	<u>Same</u>	<u>Less</u>		<u>More</u>	<u>Same</u>	<u>Less</u>
100%(1)	0%	0%	Close	0%	0%	100%(2)
50%(1)	50%(1)	0%	Reuse	0%	50%(2)	50%(2)
20%(1)	60%(3)	20%(1)	NGR	0%	50%(2)	50%(2)
37.5%(3)	50%(4)	12.5%(1)	Total	0%	40%(4)	60%(6)

3. In your opinion, does the base landscape represent a unique or valuable habitat in regard to the local area?

<u>Pease</u>			<u>Myrtle Beach</u>	
<u>Yes</u>	<u>No</u>		<u>Yes</u>	<u>No</u>
100%(2)	0%	Close	100%(2)	0%
100%(2)	0%	Reuse	50%(2)	50%(2)
100%(3)	0%	NGR	66.7%(2)	33.3%(1)
100%(7)	0%	Total	66.75%(6)	33.3%(3)

3a. Is this land worth preserving?

<u>Pease</u>			<u>Myrtle Beach</u>	
<u>Yes</u>	<u>No</u>		<u>Yes</u>	<u>No</u>
100%(1)	0%	Close	100%(1)	0%
100%(2)	0%	Reuse	66.7%(2)	33.3%(1)
75%(3)	25%(1)	NGR	66.7%(2)	33.3%(1)
86.8%(6)	14.2%(1)	Total	71.4%(5)	28.6%(2)

4. In your estimation, what do you think were key issues in base reuse planning?

Pease
Top three issues

1. The wildlife refuge 44%(4)
2. Poor state economy 33%(3)
3. The state/local conflict 23%(2)

Myrtle Beach
Top two issues

1. The city/county conflict 56%(5)
2. The theme park 44%(4)

5. Would you say that the working relationships between base personnel, BRAC, the Reuse Committee, and the local community were generally cooperative and productive, adequate to the task, or essentially dysfunctional?

Overall

<u>Pease</u>				<u>Myrtle Beach</u>		
<u>High</u>	<u>Medium</u>	<u>Low</u>		<u>High</u>	<u>Medium</u>	<u>Low</u>
100%(3)	0%	0%	Close	100%(2)	0%	0%
100%(3)	0%	0%	Reuse	100%(4)	0%	0%
33%(2)	50%(3)	16.7%(1)	NGR	75%(3)	25%(1)	0%
63.6%(7)	27.3%(3)	9.1%(1)	Total	90%(9)	10%(1)	0%

63.6%(7) characterized state and local relationships as poor.

90%(9) characterized county and city relationships as poor.

6. Would you describe the relationships between the federal, state, and local governments as effective and cooperative, adequate, or barely functional?

Overall						
<u>Pease</u>				<u>Myrtle Beach</u>		
<u>High</u>	<u>Medium</u>	<u>Low</u>		<u>High</u>	<u>Medium</u>	<u>Low</u>
50%(1)	50%(1)	0%	Close	50%(1)	50%(1)	0%
50%(1)	50%(1)	0%	Reuse	75%(3)	25%(1)	0%
75%(3)	25%(1)	0%	NGR	60%(3)	20%(1)	20%(1)
62.5%(5)	37.5%(3)	0%	Total	70%(7)	30%(3)	10%(1)
75%(6) characterized state and local relationships as poor.				90%(9) characterized county and city relationships as poor.		

7. What neighborhood organizations and special interest groups seemed to be involved in the reuse discussion?

<u>Pease</u>	<u>Myrtle Beach</u>
1. VOICE 66.7%(2)	1. Old Forest Neighborhood Association 100%(1)
2. SCOPE 33.3%(1)	

7b. Do you think the local community was unified in what they wanted done with this property, and did they present a cohesive front early in the planning process?

<u>Pease</u>			<u>Myrtle Beach</u>	
<u>Yes</u>	<u>No</u>		<u>Yes</u>	<u>No</u>
100%(1)	0%	Close	0%	100%(2)
100%(4)	0%	Reuse	0%	100%(3)
100%(6)	0%	NGR	0%	100%(5)
100%(11)	0%	Total	0%	100%(10)

8. Did you think that group interaction between all parties was relatively equal, or did one party of group of parties seem to dominate?

<u>Pease</u>			<u>Myrtle Beach</u>	
<u>Equal</u>	<u>Dominated</u>		<u>Equal</u>	<u>Dominated</u>
100%(1)	0%	Close	100%(2)	0%
33.3%(1)	66.7%(2)	Reuse	50%(1)	50%(1)
33.3%(1)	66.6%(2)	NGR	0%	100%(4)
42.8%(3)	57.2%(4)	Total	37.5%(3)	62.5%(5)

25%(1) thought the city dominated
75%(3) thought the state dominated

20%(1) thought the state dominated
40%(2) thought the city dominated
40%(2) thought the county dominated

9. Do you think the effect of local land use planning on the status of wildlife is strong and direct, moderate and indirect, or that there is basically no relationship?

<u>Pease</u>				<u>Myrtle Beach</u>		
<u>Strong</u>	<u>Medium</u>	<u>Weak</u>		<u>Strong</u>	<u>Medium</u>	<u>Weak</u>
0%	0%	100%(1)	Close	0%	0%	100%(1)
50%(1)	0%	50%(1)	Reuse	0%	0%	100%(2)
80%(4)	0%	20%(1)	NGR	25%(1)	0%	75%(3)
62.5%(5)	0%	37.5%(3)	Total	14.3%(1)	0%	85.7%(6)

10. Would you say that the local community's environmental concerns and their willingness to act on them in regard to base closure issues was very high, high, medium, moderate, low, or very low?

<u>Pease</u>				<u>Myrtle Beach</u>		
<u>High</u>	<u>Medium</u>	<u>Low</u>		<u>High</u>	<u>Medium</u>	<u>Low</u>
0%	100%(1)	0%	Close	0%	0%	100%(2)
75%(3)	0%	25%(1)	Reuse	0%	0%	100%(4)
100%(5)	0%	0%	NGR	0%	0%	100%(5)
80%(8)	10%(1)	10%(1)	Total	0%	0%	100%(11)

11. Do you recall which environmental and wildlife conservation groups (if any) were involved in reuse discussions?

Pease

Myrtle Beach

- | | |
|--|------|
| 1. Audubon Society of New Hampshire | None |
| 2. Society for the Protection of New Hampshire Forests | |

12. Would you describe base reuse planning as very open, moderately open, moderately closed, or basically inaccessible?

Pease

Myrtle Beach

<u>High</u>	<u>Medium</u>	<u>Low</u>		<u>High</u>	<u>Medium</u>	<u>Low</u>
50%(1)	50%(1)	0%	Close	100%(2)	0%	0%
25%(1)	25%(1)	50%(2)	Reuse	75%(3)	25%(1)	0%
50%(2)	25%(1)	25%(1)	NGR	60%(3)	40%(2)	0%
40%(4)	30%(3)	30%(3)	Total	72.3%(8)	27.7%(3)	0%

13. Were members of the general public (such as local citizens not holding a government job, but maybe a neighborhood representative) in a decision-making position, in some part of the planning process which developed the base reuse plan?

<u>Pease</u>			<u>Myrtle Beach</u>	
<u>Yes</u>	<u>No</u>		<u>Yes</u>	<u>No</u>
0%	0%	Close	0%	100%(1)
0%	100%(2)	Reuse	0%	100%(1)
0%	100%(1)	NGR	0%	100%(3)
0%	100%(3)	Total	0%	100%(5)

However, 100%(3) said the sub-Committees had a lot of influence

20%(2) said the sub-committees did not have much influence

14. Do you think that the decisions made by the reuse committee usually treated everyone fair? (yes or no)

<u>Pease</u>			<u>Myrtle Beach</u>	
<u>Yes</u>	<u>No</u>		<u>Yes</u>	<u>No</u>
50%(1)	50%(1)	Close	100%(2)	0%
66.7%(2)	33.3%(1)	Reuse	100%(4)	0%
100%(4)	0%	NGR	75%(3)	25%(1)
77.8%(7)	22.2%(2)	Total	90%(9)	10%(1)

15. Do you think that these decisions were usually good ones?

<u>Pease</u>			<u>Myrtle Beach</u>	
<u>Yes</u>	<u>No</u>		<u>Yes</u>	<u>No</u>
100%(1)	0%	Close	100%(1)	0%
66.7%(2)	33.3%(1)	Reuse	100%(3)	0%
100%(4)	0%	NGR	75%(3)	25%(1)
88.9%(8)	11.1%(1)	Total	87.5%(7)	12.5%(1)

15b. Do you feel that public comments were openly received, or did the reuse committee basically ignore these comments when they did not coincide with their own redevelopment vision?

<u>Pease</u>			<u>Myrtle Beach</u>	
<u>Yes</u>	<u>No</u>		<u>Yes</u>	<u>No</u>
0%	0%	Close	100%(2)	0%
50%(2)	50%(2)	Reuse	100%(4)	0%
0%	0%	NGR	0%	100%(2)
50%(2)	50%(2)	Total	75%(6)	25%(2)

16. Would you call this reuse planning a democratic process?

<u>Pease</u>			<u>Myrtle Beach</u>	
<u>Yes</u>	<u>No</u>		<u>Yes</u>	<u>No</u>
100%(1)	0%	Close	100%(2)	0%
66.7%(2)	33.3%(1)	Reuse	100%(4)	0%
75%(3)	25%(1)	NGR	75%(3)	25%(1)
75%(6)	25%(2)	Total	90%(9)	10%(1)

17. What do you think were the regulations that had the most direct influence over the closure and reuse planning process?

<u>Pease</u>	<u>Myrtle Beach</u>
1. CERCLA 55.5%(5)	1. CERCLA 50%(2)
2. NEPA 22.3%(2)	2. NEPA 25%(1)
3. RCRA 11.1%(1)	
3. Zoning 11.1%(1)	

APPENDIX F

REQUEST TO USE COPYRIGHTED MATERIAL

TO: Duke Richards

DATE: 25 May 1999

FROM: Capt. Tom Williams, 2029 W. 36th Ave Unit F
Denver CO, 80211, (303) 477-0624,
Fax to - Attn: Tom Williams (303) 556-5971

I seek permission to reprint the following material from your publication.

AUTHOR: NuCorp Publications, Inc.

TITLE: "1,200 acres of Pease preserved for wildlife." 1990. *The Pease Report* 3
(February 28): 1

MATERIAL REQUESTED:

Regional Map of Pease Air Force base, showing parcels wildlife refuge land.

(Copy attached for your references)

This material is to be reprinted in the following thesis:

TITLE: *Pave it or save it: Wildlife Preservation planning under the Base Closure
and Realignment Act*

AUTHOR: Tom Williams

EST. PUBLICATION DATE:

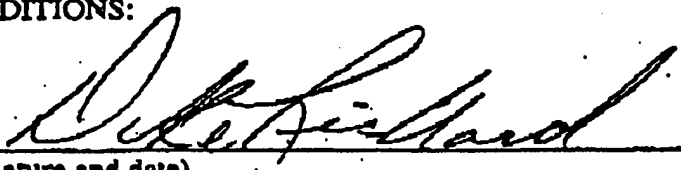
August 1999


(Thesis Author's Signature)

Duke Richard, Associate Editor

PERMISSION GRANTED BY (please type name and title):

CONDITIONS:


(Signature and date)

THE PEASE REPORT

No. 3, Feb. 28, 1990
P.O. Box 7087
Portsmouth, NH 03802-7087

© copyrighted 1990 by NuCorp Publications, Inc.

Marketing contract back out to bid

The Pease AFB Redevelopment Commission is searching for a marketing and brokerage firm to help develop the 4,253-acre base and two-mile runway on New Hampshire's Seacoast. Interim use of the base could occur as soon as this fall. The base is scheduled to close officially January 1, 1991.

A Request for Proposals for marketing and brokerage of the base has been sent to 28 companies throughout the United States.

The request was sent by the Pease Redevelopment Commission to companies recommended by Bechtel, Inc., the firm hired by the commission to design a master plan for reuse of the facility.

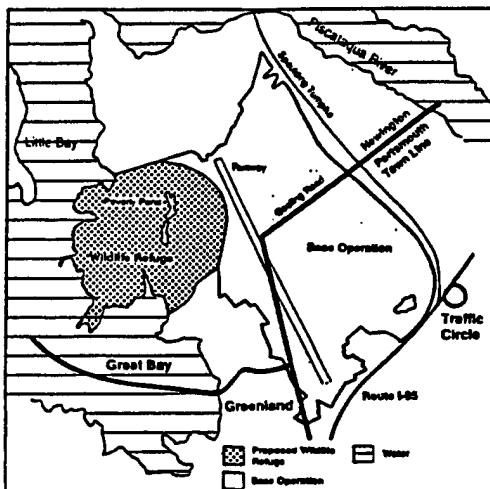
Preliminary marketing discussions with Kilroy Industries of El Segundo, Cal., were not successful, according to the Commission. Kilroy will continue working on the project in its capacity as a subcontractor with Bechtel.

The selected company will be the primary marketing and brokerage agent for the Commission during the initial planning phase.

The RFP asks companies to propose a series of selling fees, fees from sales of buildings, leasing fees and other terms. Included in the RFP is a detailed analysis of the facility and a location map.

Interested brokerage and marketing firms are asked to respond to the RFP by March 20.

(To request an RFP, telephone 603-433-6088.)



1,200 acres of Pease preserved for wildlife

Long hours put in by the Natural Resources Protection Advisory Committee paid off when the Pease AFB Redevelopment Commission voted unanimously, despite cautions from its hired master planner, to establish about 1,200 acres of conservation land on the 4,253-acre military base.

The undeveloped area, which has been designated a U.S. Fish & Wildlife Refuge, is bounded on the west by Great Bay, a saltwater inlet, and on the east by McIntyre Road in Newington. Public access, includ-

ing hiking, camping, nature trails, fishing and hunting, is assured except at times or in areas deemed ecologically sensitive.

Ideally the land will be transferred from the Department of Defense to the Department of the Interior at no cost. However, the Air Force is mandated to receive fair market value for all land attached to the 86 bases closing under the 1988 Base Closure Act. Negotiations between the departments of Interior and Defense, or legislation filed concerning the transfer, are other options.

STAFF:
Michael F. Farren,
Coordinator
Heidi D. Thiermann,
Assistant
300 Gosling Road
Portsmouth, NH 03801
603-433-6088
603-433-6250
FAX: 603-427-0433

COMMISSION:
George C. Jones, Chair
415 Ocean Road
Portsmouth, NH 03801

Henry M. Powers,
Vice Chair
68 River Road
Box 261
Stratham, NH 03885

Theodore L. Mueller
Treasurer
114 Patterson Lane
Newington, NH 03801

John W. Byrne
12 Ship Rock Road
N. Hampton, NH 03862

Margaret Lamson
71 Little Bay Road
Newington, NH 03801

John R. Mazeau
315 Newington Road
Newington, NH 03801

Eileen Foley
39 Sunset Road
Portsmouth, NH 03801

Jim Splaine
83 Wilard Avenue
Portsmouth, NH 03801

PEASE AFB REDEVELOPMENT COMMISSION

The Pease Report is aimed primarily at business and industry CEOs and managers who know the importance of following the evolution of Pease Air Force Base to a civilian facility. In 26 issues annually, The Pease Report will keep subscribers current on the events surrounding the redevelopment of Pease. The annual subscription rate is \$50 for 26 issues. Companies ordering five to ten subscriptions pay \$45 each. More than ten is \$40 each. The Pease Report, P.O. Box 7087, Portsmouth, NH 03802-7087. Credit card orders accepted.

WHY A PEASE REPORT?

APPENDIX G

PEASE INTERVIEW QUOTES

A) How the creation of a wildlife refuge at Pease was presented with force early on in the planning process:

However, you've to remember that there was legislation passed that stated this will to Fish & Wildlife Service. So it really wasn't an option. So you know there were two parts in this thing. It was going to go there anyhow, but it was kind of quantified by the statute that it would go there anyhow. (Close-AD 1998, 4)

We were sued because people didn't like what we did, and whether they consider that a hold up to redevelopment or not, it's just a point of view. But we were sued for three particular issues, which did slow down the process until we issued supplemental EIS in August of 1995 before we could do anything else. So, we lost like three years in the process. Didn't impact the wildlife refuge; that was transferred in August of 1992. (Close-AD 1998, 4)

It was almost a trade off. Alright. We'll give you this 1200 acres of land, but we're going to develop this land over here. And even after we gave -- and first of all, we made a tremendous mistake by giving the 1200 acres first. We should have held it as a carrot out here until we got what we wanted and said, 'okay now here's your 1200 acres,' if you're going to have to give it to him. But it wasn't even used as a pawn.... legislation that was passed early on so they get the 1200 acres of land before anything happened. Now I say they got it, but it transferred to the National Fish & Wildlife. (Reuse-SJ 1998, 3).

We really worked at getting the Fish & Wildlife Agency on our side, we even gave them a free office to put their field operators in. The Fish & Wildlife people really wanted this land. You see, the state was slow and careless when this planning process started. Newington had a plan before the base was even closed. This plan was to get the Fish & Wildlife people in on our side. (Reuse-PL 1998, 3)

The wildlife refuge had early on always been considered to be planned as a wildlife refuge. So, it wasn't an issue for development, okay. (Reuse-SM 1998, 8)

Well, I think the big issues were the disposition of the base, the main part of the base. Not so much the refuge, because the early beginning Newington had the foresight to say gee, this is a great area in that's set off. And I think that's probably one of their reasons why, some people won't agree with me, that the refuge has been such a success and why it didn't get involved in a lot of politics and a lot of hassles, because it was already set aside. (NGR-PB 1998, 3)

I think, because right from the beginning Newington said, 'you know that should be a wildlife refuge. That should be set aside.' (NGR-PB 1998, 18)

One of the main reasons that we were able to get this refuge is we got the idea on the table before anybody else got their ideas on the table. It's one of the first things we did. (NGR-SV&WF 1998, 24, para.)

They were able to get these goals because they were the first out of the gate. The creation of the wildlife refuge was done purely through political means. It also helped that this land had some pretty bad waste sites that we didn't know what to do with; because of this, the site would have been difficult to develop. We gave them this site early on in the process, hoping that this would make them happy and would allow us to do the kind of development we wanted to at the airport. (NGR-RG 1998, 2, para.)

Yes, they were the first out the gate. We gave them the refuge because we were afraid that if we didn't, they wouldn't go along with the rest of the airport development. However, this did not stop them from trying to stop the airport too. (NGR-RG 1998, 3)

It seemed to -- I mean my recollection is that the idea of creating a refuge on a portion of that land was not a hard sell. There were certainly some opponents but everybody got something in that transfer. (NGR-KS 1998, 8)

I think that they knew pretty early on that they wanted to make that particular area that is a wildlife refuge, make that a wildlife refuge. So there's never been, I don't think, any serious talk -- other than maybe, oh well, we could put a theme park there. I mean that was really, I think that was -- came and gone quickly. (NGR-CG 1998, 3-4)

I think there's been sensitivity in terms of development there in terms of wildlife, but I don't think anybody's really seriously ever talked about putting anything where the refuge is. (NGR-CG 1998, 4)

B) The land on Pease was seen as unique because of it being undeveloped, unlike a lot of the surrounding area -- Interview Question 3:

Yeah, unique, yes located on the base was the weapons storage area. And as a result of the weapons storage area being there, those are clear zones that had to be kept clear around the weapons storage area. So, there's no building construction, really no attributes other than recreational. So that wildlife area really represents the area in the seacoast that falls back to the 1950s, mid-1950s, which is undeveloped. So really, that area's unchanged from the 1950s, which is very unique. (Close-AD 1998, 1-2)

Yeah, it most certainly does. Because the seacoast is under tremendous development pressure. (Close-DJ 1998, 2)

The estuary is very important, and this is six miles of shoreline on the bay. (Reuse-TM 1998, 1, para.)

Yeah. Well, I mean there's a lot of other reasons. But that's one of the things that's unique for this area. And of course just the fact that we have over 1000 acres undeveloped is unique for this area. (NGR-SV 1998, 9)

It is the largest block of undeveloped land on Great Bay. (NGR-WF 1998, 9)

Yeah. I've never lived there. But my memory is that, the testimony we heard at least was that, there were unique things about the wetlands and about the ponds, especially given the development that has occurred around the area... (NGR-KS 1998, 1)

C) The bad economy of the time was the main driving force in redevelopment planning:

...when we [PDA] took over to develop Pease in 1990, there was tremendous pressure on us to do something. Back in that time the economy was in the tubes; banks in New Hampshire were going broke. We were in tremendous financial straits as far as the whole economy. (Reuse-SJ 1998, 2)

...there was tremendous pressure on us to develop, to develop, to develop, at a time when the economy was in the tubes and the state was struggling for money... (Reuse-SJ 1998, 7)

...we were under tremendous pressure from the newspapers and from the local development authorities, development agencies, you know, communities... (Reuse-SJ 1998, 15)

We wanted to bring in outside. We wanted to create jobs. We wanted new people. We didn't want to bring somebody in locally. (Reuse-SJ 1998, 16)

There were other parties who wanted to develop the same land... (Reuse-TM 1998, 1, para.)

We had an economic slump during 1990. The economy was bad during 1991-1995... (Reuse-PL 1998, 3, para.)

Also, they realized that the whole economy in the area is sagging so their support was for, you know, quick and rapid development here but quality development. (Reuse-SM 1998, 4)

Oh yes. We unfortunately were walking a very tight line here. We had concerns with economic downturn. The area needed to get revitalized from that. (Reuse-SM 1998, 14)

...we were coming out of the recession, that there was a push, there was a need perceived ... some people perceived a need to have an economic recovery engine in place and this one (Pease redevelopment) presented itself, and the opportunity was seized upon. So yeah, the context there of a recession and a need, perceived need for more jobs and economic activity met, I suspect that the options for reuse, well, the result may have come out differently had we not been in a recession. There would have been less pressure to create all these new jobs and stuff. (NGR-KS 1998, 13)

Pease, when they closed Pease, it took a lot of jobs, a lot of community, and they've also had reductions in the shipyard labor force, which is close nearby here as well. So there's been a big impact of reduction of employment related to military bases here. So, I think that their biggest thing they were concerned about was creating jobs to replace those that were gone when they closed it. I think that was the biggest thing... (NGR-CG 1998, 3)

D) Bad governmental relationships between state and the cities of Newington and Portsmouth (mainly Newington) -- Interview Questions 5 & 6:

You know, obviously there was a conflict between the redevelopment authority and local communities on how to reuse it. (Close-AD 1998, 3)

They vary. Depending on the issue. It would depend on the issue. There's some very strong feelings locally, and local versus state, and we had, you know, depending on the issue, you had some very distinct differences as to how things ought to be done. (Close-DJ 1998, 5)

...and there's always been in this state, and I suspect every other state, there's always a feeling in the local community that the state's trying to take advantage of them. So you never trust anybody from the state because the state's going to take advantage of you. (Reuse-SJ 1998, 1-2)

You won't find anything but state versus local feelings here, nothing in between. You won't find anything in between. I guarantee it. You're wasting your time. (Reuse-SJ 1998, 29-30, para.)

And I'm afraid in the early days it was always newsworthy... [the state/local conflict]. (Reuse-SM 1998, 17)

Bechtel and the state were partners, wanting to develop the hell out of Pease. We stopped this by our letter writing campaign and the incompetence of Bechtel and the state. Our mobilization of the local community was the greater power. (Reuse-PL 1998, 2)

Crummy. (NGR-PB 1998, 6)

E) Good federal government working relationships -- Interview Questions 5 & 6:

Oh, cooperative! (Close-AD 1998, 4)

Actually, I think the relationship over that time became stronger and more cooperative. At the onset, the very beginning, there was your typical apprehension in dealing with big government. And then they found that we were here to help them and that transition was made. (Close-AD 1998, 5)

So far I think it's working pretty well. (Close-DJ 1998, 3-4)

So I mean, and the answer is at Pease, absolutely. It took awhile, but very shortly there was a degree of trust and confidence built amongst the players and that's, the theme was how are we going to make this work. And then when you said you were going to do something or take a certain responsibility, you took it. You didn't argue about it later. You just lived up to it and did it. Was there some retribution, retribution here and there? Sure, but that's -- overall, I think it is really a success. (Close-DJ 1998, 4)

They were excellent. Dick Jones and his staff worked extremely hard to try to be intermediaries, and I say that because there was a tremendous amount of strife on the PDA board.... But Dick Jones and his crew worked very hard to try and make sure that we had access to Washington. (Reuse-SJ 1998, 11-12)

Yeah, I'd say we all got in; you know, it was a bump and grind to begin with because none of us had ever been through it. You're talking to the first base to close under base closure realignment act. So, we were writing the bible here on base closures, and the Air Force uses us as a success model and none of us had a guide book. So, through that function, we were going through all of this for the first time, and it had to be an open and free exchange of information and a working relationship. So I think Pease has established a very good working relationship with these federal agencies. (Reuse-SM 1998, 3)

Oh, I think they were productive. (Reuse-SM 1998, 3)

Actually, very well I think. Specifically, there's a contractor that's working for the conversion agency, and we can call them up, and they'll let us use their tractor. They've done things for us when we have a project going on in the refuge. They dug out a well for us. And you know it's one of those things where if you know who to call, they're very supportive and helpful and quick about it, which I've been very happy with that. (NGR-SV 1998, 13)

They've [the Base Conversion Agency] just been absolutely terrific. (NGR-WF 1998, 16)

Quite a lot of support [from the Base Conversion Agency]. (NGR-SV 1998, 16)

They're [Newington] -- it'd be tough to have a better neighbor. (NGR-WF 1998, 18)

That's a good question. It certainly wasn't dysfunctional. I would say -- there were competing interests, that's for sure. I think, because the result seems to have satisfied most of the participants, you'd have to say the relationships were productive. (NGR-KS 1998, 2-3)

In the beginning it was certainly much more difficult than it is now. Right now, I think they've got a good working relationship with the Base Conversion Agency, Art Ditto, who you'll be talking to, very open, very straightforward. And he's like, you know, he'll tell you anything you want to know. And I know that he has a good working relationship with the people at the PDA, the Pease Development Authority. The city and the PDA right now are on good terms. (NGR-CG 1998, 4)

F) Government regulations were an implementation issue -- 17:

Now they've come out with an economic development conveyance in conjunction with public benefit transfer. There is a whole bevy of issues that go along with that, but as I recall it was difficult for us to take transfer of property within the confines of CERCLA, which says you may not have the property until you cleaned it up, the Air Force Base Closure says, transfer the property and clean it up at the same time. So, these two pieces of regulation were having a difficult time for us. (Reuse-SM 1998, 10)

Outside of this (the bad economy), the most important regulations were CERCLA, FAA regulations, Portsmouth and Newington Zoning, the Clean Air Act, the Clean Water Act, and traffic regulations. A lot of studies came out of these regulations. (NGR-RG 1998, 2, para.)

Oh I think that national law (NEPA) has had some tremendous impact. And it required a certain degree of public participation where it might not have existed otherwise. (NGR-KS 1998, 12)

Well certainly, you know they enabled legislation that created the Pease Development Authority. That somewhat set out some of the goals that they were suppose to follow and what they did, and I think they tried to do that. In terms of regulations, I mean certainly they've been subject to, you know, federal environmental regulations, the clean-up process and also regulations in terms of, you know the Air Force, you know under what circumstance land can be transferred, what has to happen environmentally to land that they're cleaning up before it can be transferred... (NGR-CG 1998, 20)

G) Biocentric -- Interview Questions 3 & 9:

Yes [worth preserving the land for wildlife alone]! (Close-AD 1998, 1)

Yeah, it most certainly does [worth preserving the land for wildlife alone]!
Because the seacoast is under tremendous development pressure.
(Close-DJ 1998, 2)

...this preservation was seen as irreplaceable. This was seen as preservation, not recreation. The local community wanted this preservation to happen...
(Reuse-PL 1998, 3, para.)

The estuary is very important and this is six miles of shoreline on the bay.
(Reuse-TM 1998, 1, para.)

H) High environmental activism -- Interview Question 10:

Well you saw those budgets downstairs; I'd say it was high.
(Reuse-SM 1998, 7)

Yeah [high]! (NGR-PB 1998, 11)

And I think that the reason that the refuge is here as a refuge was because the people in the town of Newington wanted it to be a refuge, and every indication that I have is that they continue to be, to think they were right. That having a refuge was what they wanted. Now they have it, and they like it a lot.
(NGR-WF 1998, 16)

...everyone is very concerned about these things. (NGR-WF 1998, 25)

From a municipal policy standpoint, they do have, you know, a significant hunk their town, it is a wildlife refuge. And there's only 515 refuges in the country. So there's only potentially 515 towns in the entire country that could say that, so I guess that's kind of, you know, that does make some statement about their interest. (NGR-WF 1998, 26)

We certainly have -- I mean of our own membership over there, they were pretty responsive and called and were involved in the letter writing.
(NGR-KS 1998, 9)

I think so, yeah I think so. Because there's always been a lot of, on the part of Newington, there's always a lot of environmental related concerns about what's happening there. A big issue right now is noise; they're worried about airport noise. (NGR-CG 1998, 9)

This is an area where people do care very much about the environment. There's a lot of, like you, know, like we have a national company that does environmentally and social responsible mutual funds ... located in Portsmouth, based here... (NGR-CG 1998, 13)

I) Close connection between land use planning and wildlife conditions -- Interview Question 9:

How could you say there is no correlation? (NGR-SV 1998, 22)

Yes [there is a strong connection]! (NGR-WF 1998, 23)

Oh, I think there's a pretty definite connection. (NGR-KS 1998, 8)

I think there's a definite concern on the part of people and developers here to try and -- people who are developing with a conscience anyway, which most of the people here I would say do, do care about wildlife and preserving the environment. (NGR-CG 1998, 13)

J) Distant connection between land use planning and wildlife conditions -- Interview Question 9:

There's no relationship... (Close-DJ 1998, 7)

K) Close connection between land use planning and wildlife conditions -- Interview Question 9:

Strong and direct. (Reuse-TM 1998, 2, para.)

L) Distant connection between land use planning and wildlife conditions -- Interview Question 9:

I don't think that there is a relationship... (Reuse-SM 1998, 6)

M) Comments on Newington's high levels of community organization and local political action -- Interview Question 7b:

And I guess you probably heard they said the town of Newington didn't want the development so they pushed whatever they could do to be obstructionists.... that was just to slow the process down. And you would think if they had their druthers, this would be a cornfield. (Close-AD 1998, 14)

They were more concerned about getting 1,200 acres of land in their backyard that wasn't going to be developed. (Reuse-SJ 1998, 19)

You know, and they never wavered one bit. They never did anything that we wanted them to do. It was always what they wanted, and if they didn't get what they wanted, they went to the newspapers and cried, and we looked like the bad guys. (Reuse-SJ 1998, 25)

The wildlife refuge was not a concession from the PRC; Newington grabbed it from the Air Force for the Fish & Wildlife Agency to use. (Reuse-PL 1998, 3, para.)

The local community wanted this to happen -- the town meeting in New England is the purest form of government. This was seen as something that would be kept for future generations. (Reuse-PL 1998, 3, para.)

So our early board of directors (PRC executive committee) had an uphill battle. It was extremely difficult thing. One, because we were the first. Two, because you had communities here operating under a set a laws and town legislation and small town meetings and things like that, which is a character of New Hampshire, but capable of giving these municipalities enough power to rattle some cages for their own development issues. Okay? (Reuse-SM 1998, 14)

And being that the refuge was in the residential area, there was no sense to start developing that particular area. And they were adamant about it. They were very adamant that they didn't want development out there and that one of the prime uses of that would be for some kind of a refuge. (NGR-PB 1998, 3)

Newington was quite vocal in how they wanted Pease developed. (NGR-PB 1998, 9)

Well with Newington, you've got a small community in a very small area, and the selectmen, you know the selectmen, they're almost everybody's neighbor. So, when they said, 'you know this a good deal; I mean we should push to have this set aside because it used to be our land anyway. It used to be our farms.' I mean some of those people that live in Newington had farms taken.... So, they're still attached to the land even though it was Air Force land for 35 years. They still had that attachment to the land. So when a selectman says, 'it's a good deal. We ought not develop it,' the town of Newington, the people in Newington, to a man says, 'right.' The city of Portsmouth, you go out on the street and you ask somebody, 'I don't know. I don't care. It doesn't matter to me.' (NGR-PB 1998, 11)

They wanted to keep things the same. And I think that's, I think a lot of the townspeople feel that way. And I don't blame them. If I lived in Newington, I'd feel the same way. (NGR-PB 1998, 12)

But I think in looking at other bases, you've got to take into consideration those -- and I think those are the big factors -- the geographics and really the local community and how the local community feels about that particular parcel of land that's going to be put into some kind of refuge or a park or whatever. See here, you had a town saying, 'we don't want no industrial park; we don't even want people living out there.' (NGR-PB 1998, 20)

But I suppose I'm biased in thinking that New Hampshire does, and New England in general, has a little more [environmental activism], maybe because of the urban kind of growth here has been here longer; people need to protect that sort of natural landscape. (NGR-KS 1998, 15)

Partly, I may be completely wrong. But my impression is in areas of the west where urbanization hasn't been going on as long, there isn't as much concern yet for zoning and land protection and making clear distinctions about where you're going to build and where you're not going to. (NGR-KS 1998, 15)

Certainly the state is not in complete control. If they wanted to be in control of Pease, they're not; that is certain. (NGR-CG 1998, 8)

So, you know the best way I think you can tell people are happy is if you don't really hear them talking about it; no one's saying anything about it [the wildlife refuge] then they must be happy. Really, because the only time you hear people really speak up is when they're angry about something. (NGR-CG 1998, 21)

And I think that the reason that the refuge is here as a refuge was because the people in the town of Newington wanted it to be a refuge... (NGR-WF 1998, 16)

They really consider the refuge to be part of the community and the people that work for the refuge. And the fact that I live on the refuge is like the most wonderful thing to this town. (NGR-SV 1998, 19)

But what you don't know is that they've been here for four generations. And that land was inherited. And they might just be, you know, people that work up at the naval yard or whatever. (NGR-SV 1998, 20)

They have a town conservation commission too.... It's just kind of like a group of people that are interested in the planning of the town. (NGR-SV 1998, 23)

...this is just a function of New England, the individual communities are self-sufficient, or they believe in that... (NGR-WF 1998, 25)

You know in Newington. So we're not, you know, we're not talking about a huge city. I agree with what Sharon says about the kind of Yankee spirit. I think that exists. (NGR-WF 1998, 26)

Newington wanted the wildlife refuge to protect their way of living, and I can't blame them. If I lived there I would have wanted the same thing. (NGR-RG 1998, 1)

No. Newington got whatever they wanted. They pretty much wanted three things: 1) to create a park in their area that didn't cost them anything, 2) limit the scale of development at Pease, 3) restrict the size of the airport. (NGR-RG 1998, 2, para.)

N) Moderately open -- Interview Questions 12 & 16:

Because it was a state agency, state structure, it had to be open to public comment. So it was -- what was the mid-term ... moderately open. (Close-AD 1998, 8)

I would say they satisfied the requirement to be open to the public. (Close-AD 1998, 8)

I think it was pretty good... (NGR-PB 1998, 5)

In my experience, I went to a few of their meetings, the public meetings and people could come and speak.... everybody could say what they wanted to say. Sometimes a little hostile...(NGR-KS 1998, 3)

Humph. Somewhere in the middle. (NGR-KS 1998, 10)

Given what the outcome might have been [heavy development], had there been no public discussion of this, I would be definitely unsatisfied. And I think the public discussion made it better. (NGR-KS 1998, 11)

I'm generally pleased (NGR-KS 1998, 12)

You know they certainly, they certainly had the chance to have their say whether or not that was part of the decision. (NGR-CG 1998, 19)

O) Very open -- Interview Questions 12 & 16:

I think it fell right in line. (Close-DJ 1998, 2)

Yes [very open]! (Reuse-SM 1998, 9)

This was a very open and democratic process for the PRC -- probably the most massive public outreach program New Hampshire ever had. (NGR-RG 1998, 2)

P) Closed to the public -- Interview Questions 12 & 16:

Everything was done behind the scenes [by Bechtel & the State]. They would occasionally throw us a bone. However, they [Bechtel & the State] did not get to implement their plans. The planning process was very inaccessible to the common Joe. So much was done behind the scenes, it was the state who wanted and got Bechtel. (Reuse-PL 1998, 2, para.)

The state didn't want an open process, while Newington and the surrounding area did. (Reuse-PL 1998, 3)

No, the state didn't want public participation. That's why we went to schools and did the letter drive to force local public input onto the process from outside pressure. We really worked at getting the Fish & Wildlife Agency on our side; we even gave them a free office to put their field operators in. (Reuse-PL 1998, 3, para.)

Q) The overall planning process was mostly fair -- Interview Questions 8 & 14:

I think that they -- they voted fair to everyone. (Close-DJ 1998, 11)

I think as fairly as you can, when you've got a process to get through, and you have to get through it. You can't get muddled up and bogged down in details. We were on a time restraint. (Reuse-SJ 1998, 23)

It was designed to be unequal, in favor of the state, but in the end it has worked out to be more equal. (Reuse-TM 1998, 2)

Yes, because pretty much anybody that had an issue was represented on the PRC. They had a number of different committees that handled different aspects of what would ultimately be development here. (Reuse-SM 1998, 8)

So, I don't think you can get much fairer than that because of the fact that it is a state endeavor. (Reuse-SM 1998, 9)

Yes, it was hard to do a balance between the state and all the local communities. Everyone did a hell of a job. (NGR-RG 1998, 2, para.)

...they had so many sub-committees that you could go to and try to influence their particular stand on an issue. And if you could influence their decision, you could sway the board to your way of thinking because the main commission would usually take the recommendation of the sub-committee, if there was nothing blatantly wrong with the decision on that issue. (NGR-PB 1998, 14, para.)

I mean looking back on it, it doesn't feel like any one group dominated it. (NGR-KS 1998, 8)

I think it's been about 50/50. I don't think it deliberately tried to be unfair to people... (NGR-CG 1998, 15)

R) The reuse planning process generally produced good decisions -- Interview Question 15:

I think the ultimate direction they went were to good decisions. I think it just happened that way. (Close-AD 1998, 10)

Yeah, we did; I did. I think that we made some mistakes. But I think as we look back, and as I look back at it, I see we did a lot of good things.
(Reuse-SJ 1998, 10-11)

It's tough. It was a tough thing to do. I think the end result shows that we did the right thing, but it was not without a lot of blood. You know?
(Reuse-SJ 1998, 26)

Yeah. (Reuse-SM 1998, 9)

This was a violent process; there was a lot of yelling. But the people involved in the PRC knew they had to do this, so they kept working at it. They did a good job. (NGR-RG 1998, 1)

Yes. (NGR-RG 1998, 2)

They weren't always friendly I guess. But I think that they did, in the end, produce a workable result that most people could support. (NGR-KS 1998, 3)

I mean overall, looking back on it, I'm relatively satisfied with the outcome.
(NGR-KS 1998, 10)

S) Wildlife is better off now -- Interview Question 1:

You mean the population of wildlife, whatever it is? I think the population has increased; the population of deer and wildlife seemed to have increased. (Close-AD 1998, 1).

...is there more wildlife out there today? The answer has to be yes.
(Reuse-SJ 1998, 8)

Better off. We now have professionals managing it now; the Air Force ignored the wildlife. (Reuse-TM 1998, 1, para.)

So, I would say for the wildlife, it's probably a much better scenario because there's nobody coming down and scaring off the birds by swimming or, you know, having a picnic or something like that... (Reuse-SM 1998, 13)

I believe this boosts the regional ecosystem, yeah. (NGR-SV 1998, 30, para.)

Just from the monitoring that we've done with the change over time, I'd say there isn't a doubt in my mind that the population's better. (NGR-SV 1998, 7)

Better in a second. Better. (NGR-WF 1998, 7)

I think it's better because they're taking a lot of steps in terms of cleaning things up that the Air Force messed up. (NGR-CG 1998, 1)

T) Wildlife conditions are the same, like when the Air Force managed the land -- Interview Question 1:

From what I've seen, I think about the same. (NGR-PB 1998, 1)

I have no scientific information. I guess my opinion would be that there is the potential for it to be better just because there's some planned management. (NGR-KS 1998, 1)

U) The wildlife habitat being preserved is the same or more than when the Air Force managed the area -- Interview Question 3:

About the same. (Reuse-TM 1998, 1)

I would venture to say it's probably the same. (Reuse-SM 1998, 1)

I would say about the same... (NGR-PB 1998, 1)

I mean the number of acreage is the same in terms of preserving. Or not developing, you know. (NGR-SV 1998, 8)

I you throw in that modifier [preservation]... I'm not sure that -- I think it's more acres now. (NGR-WF 1998, 9)

V) The members of the preservation coalition and the growth machine and their conflict over the undeveloped Pease land -- Interview Questions 5 & 6:

Bechtel and the state were partners, wanting to develop the hell out of Pease. We stopped this by our letter writing campaign and the incompetence of Bechtel and the state. Our mobilization of the local community was the greater power. (Reuse-PL 1998, 2, para.)

The wildlife refuge was not a concession from the PRC; Newington grabbed it from the Air Force for the Fish & Wildlife Agency to use. (Reuse-PL 1998, 3, para.)

No, the state didn't want public participation. That's why we went to schools and did the letter drive to force local public input onto the process from outside pressure. We really worked at getting Fish & Wildlife on our side; we even gave them a free office to put their field operators in. The Fish & Wildlife people really wanted this land. You see, the state was slow and careless when this planning process started. Newington had a plan before the base was even closed. This plan was to get the Fish & Wildlife people in on our side. (Reuse-PL 1998, 3, para.)

Well, let's just say that I hope that from my standpoint that the state dominated them. At least I tried....We had guys [on the PDA] who were retired executives from large companies. We had some guys who were in the real estate business in Rochester. I mean we had some good quality businessmen, high standing in New Hampshire who were part of my board. And they're the ones who made a lot of decisions from the standpoint of a business approach. Not a NIMBY approach and not what's the best form my little 800 people in the town of Newington. (Reuse-SJ 1998, 18)

I mean God almighty. These self-interests that came out. We were trying to help the economy and to develop a piece of property that's going to sit there and rot. So to have these diverse groups put together to try to be part of a planning process just doesn't work. That doesn't look good. Yeah, is it democratic? Yeah. Does it work? No, it doesn't. How do you get around it? (Reuse-SJ 1998, 21)

Well there again, it was a battle from day one.... I mean the name calling that went on for these planning guys [Bechtel] were unbelievable. Because we hired them from California. (Reuse-SJ 1998, 22-23)

You won't [find anyone in the middle]! You won't find anything in between. I guarantee it. You're wasting your time. (Reuse-SJ 1998, 29-30)

REFERENCES

- Aiken, Michael, and Paul E. Mott, eds. 1970. *The structure of community power*. New York: Random House.
- Air Base Redevelopment Commission (Myrtle Beach). 1993. Narrative history of major events concerning the closure and redevelopment of the Myrtle Beach Air Force Base December. Myrtle Beach City, South Carolina: Myrtle Beach Redevelopment Commission.
- Air Force Base Conversion Agency. 1999a. *Information on Air Force BRAC bases, contacts, and site-specific data for AFBCA's operating locations*. <http://www.afbca.hq.af.mil/ols/index.htm>, April 15.
- Air Force Base Conversion Agency. 1999b. *Status of our operating locations -- Myrtle Beach AFB*. <http://www.afbc.hq.af.mil/ols/myrtle.htm>, February 24.
- Air Force Base Conversion Agency. 1999c. *Status of our operating locations -- Pease AFB*. <http://www.afbc.hq.af.mil/ols/pease.htm>, February 24.
- Colonel T. M. Alison. 23 April, 1990. Letter from CoL. Alison to Ms. Baldwin. Letter on file with the Audubon Society of New Hampshire, Concord, New Hampshire.
- Allen, Robert. 1980. *How to save the world*. Totowa, NJ: Barnes and Noble Books.
- Almond, Gabriel A., and Sidney Verba, eds. 1980. *The civic culture revisited*. Boston: Little, Brown and Company.
- Andrews, Richard N., and Mary Jo Waits. 1978. *Environmental values in public decisions: A research agenda*. Ann Arbor, MI: University of Michigan Press.
- Angwin, Julia. 1994. "Lowry a model for vacant bases." *The Denver Post*, (July 25), B1.
- Arizpe, Lourdes, and Margarita Velazquez. 1994. The social dimensions of population. In *Population & environment: Rethinking the debate*. Arizpe, Lourdes, M. Priscilla Stone, and David C. Major, eds. Boulder: Westview Press.

- Attfield, Robin. 1998. Environmental ethics and intergenerational equity. *Inquiry* 41 (June): 207-223.
- Ausband, Jerry C. 1993a. Editorial: "United behind one base future plan." *The Sun News*, (May 30), 4E.
- Ausband, Jerry C. 1993b. "Oh, for a base facilitator." *The Sun News*, (October 18), 4D.
- Bailey, Robert G. 1996. *Ecosystem geography*. New York: Springer.
- Baker, Susan, Maria Kousis, Dick Richardson, and Stephen Young, eds. 1997. *The politics of sustainable development: Theory, policy and practice within the European Union*. New York: Routledge.
- Ballou, Elizabeth A, Director of Finance, Myrtle Beach Air Base Redevelopment Authority. 1998. Interviewed by author, 15 October, Myrtle Beach. Tape recording. Myrtle Beach, South Carolina.
- Barbier, Edward B. 1987. The concept of sustainable economic development. *Environmental Conservation* 14: 101-110.
- Barns, Ian. 1995. Environment, democracy and community. *Environmental politics* 4 (Winter): 101-133.
- Barra, Paul A. 1993. "Plans for Air Base land fundamentally different." *Alternatives*, (February 12), 1.
- Bartelms, Peter. 1994. *Environment, growth and development: The concepts and strategies of sustainability*. New York: Routledge.
- Baskin, Yvonne. 1997. *The work of nature: How the diversity of life sustains us*. Washington, D.C.: Island Press.
- Baumgartner, Frank R., and Bryan D. Jones. 1991. Agenda dynamics and policy subsystems. *The Journal of Politics* 53 (November): 1044-75.
- Lieutenant Colonel Larry Beach, DoD Base Transition Coordinator Fitzsimons Army Base. 1998. Interviewed by author, 5 August, Aurora. Tape recording. Aurora, Colorado.

- Beatly, Timothy, and Kristy Manning. 1997. *The ecology of place: Planning for environment, economy, and community*. Washington, D.C.: Island Press.
- Bestler, Bob. 1993. "MSA listing gives Strand an urban beat." *The Sun News*, (March 14), B1.
- Bernard, Ted, and Jora Young. 1997. *The Ecology of hope: Communities collaborate for sustainability*. East Haven, CT: New Society Publishers.
- Bidlack, Harold W. 1996. Swords as plowshares: The military's environmental role. Ph.D. diss., The University of Michigan.
- Bissell, Steven J. 1993. Ethical issues in state wildlife policy: A qualitative analysis. Ph.D. diss., The University of Colorado, Denver.
- Blair, John P. 1995. *Local economic development: Analysis and practice*. London: Sage.
- Board on Science and Technology for International Development. 1992. *Conserving biodiversity: A research agenda for development agencies*. Washington, D.C.: National Academy Press.
- Bossel, Harmut. 1998. *Earth at a crossroads: Paths to a sustainable future*. Cambridge, United Kingdom: Cambridge University Press.
- Boelhower, Mary Ellen. 1993. Real life refuges: Great Bay National Wildlife Refuge. *Forest Notes* (Spring/Summer): 7-8.
- Boice, L. Peter. 1997. Defending our nation and its biodiversity. *Endangered Species Bulletin* 22 (January/February): 4-5.
- Boulding, K. 1966. The economics of spaceship earth. Edited by H. Harret. *Environmental quality in a growing economy*. Baltimore: John Hopkins Press.
- Box, Richard C. 1998. *Citizen governance: Leading American communities into the 21st century*. London: Sage.
- Boyce, J. K. 1994. Inequality as a case of environmental degradation. *Ecological Economics* (11): 169-178.

- Bradshaw, Ted K. 1999. Communities not fazed: Why military base closures may not be catastrophic. *Journal of the American Planning Association* 65 (Spring): 193-206.
- Brainard, John C, ed. 1992. *The directory of national environmental organizations*. Washington, D.C.: U.S. Environmental Directories, Inc.
- Breneman, John. 1989a. "Pease wildlife refuge proposal no surprise." *Portsmouth Herald*, (2 August), A1 & A8.
- Breneman, John. 1989b. "Redevelopment Commission swamped with nominations." *Portsmouth Herald*, (May 10), A3.
- Breneman, John. 1990. "Pease wildlife supporters urged to contact Bush." *Portsmouth Herald*, (April 4), A1.
- Bresciano, Peter, member of Maine/New Hampshire VIOCE. 1998. Interviewed by author, 17 September, Portsmouth. Tape recording. Portsmouth, New Hampshire.
- Brown, Becky J. et al. 1987. Global sustainability: Toward definition. *Environmental Management* 11: 713-719.
- Brown, Lester R. 1987. Analyzing the demographic trap. *State of the World*. New York: Norton.
- Brown, Lester R., Christopher Flavin, and Sandra Postel. 1991. *Saving the planet: How to shape an environmentally sustainable global economy*. New York: W. W. Norton.
- Brudtland. 1987. *Our common future*. Oxford: University Press.
- Buell, John, and Tom DeLuca. 1996. *Sustainable democracy: Individuality and the politics of the environment*. Thousand Oaks, CA: Sage.
- Bullard, Robert D., ed. 1993. *Confronting environmental racism: Voices from the grassroots*. Boston, MA: South End Press.
- Burk, James. 1994. *The military in new times: Adapting armed forces to a turbulent world*. Boulder, CO: Westview Press.

- Burnheim, John. 1995. Power-trading and the environment. *Environmental Politics* 4 (Winter): 49-65.
- Cairncross, Frances. 1992. *Costing the Earth: The challenge for governments, the opportunities for business*. Boston, MA: Harvard Business School Press.
- Caldwell, Lynton K. 1996. The state as a work of art: Statecraft for the 21st century. *Political Science & Politics* (December): 657-664.
- Callicott, J. B. 1989. *In defense of the land ethic*. New York: State University of New York Press.
- Callison, Anne, President of the George Washington Home Owners Association. 1998. Interviewed by author, August 6, Denver. Tape Recording. Denver, Colorado.
- Carew-Reid, Jeremy, Robert Prescott-Allen, Stephen Bass, and Barry Dalal-Clayton. 1994. *Strategies for national sustainable development: A handbook for their planning and implementation*. Chromocraft, England: Earthscan Publications.
- Carroll, James D. 1995. The rhetoric of reform and political reality in the National Performance Review. *Public Administration Review* 55 (May/June): 302-311.
- Carroll, Lewis. 1967. *Alice in Wonderland*. Disney ed. New York: Grosset & Dunlap, Inc.
- Carter, Francis W., and David Turnock, eds. 1993. *Environmental problems in Eastern Europe*. New York: Routledge.
- Cassidy, Kevin J., and Gregory A. Bischak. 1993. *Real security: Converting the defense economy and building peace*. New York: State University of New York Press.
- Chomsky, Noam. 1999. "A well-informed populace is vital to the operation of a democracy." *The Onion*, (April 22-28), 8 & 10.
- President Bill Clinton. 1996. Remarks to the Presidio in San Francisco, California. Transcript. *Weekly Compilation of Presidential Documents* 32 (June): 1024-27.

- Clark, Tim W., ed. 1994. *Endangered species recovery: Finding the lessons, improving the process*. Washington, D.C.: Island Press.
- Clark, W. C., and R.E. Munn, eds. 1986. *Sustainable development of the biosphere*. New York: Cambridge University Press.
- Cobb, Clifford W., and John B. Cobb, Jr. 1994. *The Green National Product: A proposed index of sustainable economic welfare*. Lanham, MD: University Press of America.
- Code of Federal Regulations. 1999. 32: *National Defense, parts 1 to 190*. Washington, D.C.: Office of the Federal Register National Archives and Records Administration.
- Cohen, Joel E. 1995. *How many people can the Earth support*. New York: Norton & Company, Inc.
- Cole, Lyndis. 1983. Urban nature conservation. Edited by A. Warren and F.B. Glodsmith. *Conservation in Perspective*. New York: John Wiley & Sons.
- Coleman, James S. 1990. *Foundations of Social Theory*. Cambridge, MA: Belknap for Harvard University Press.
- Committee on the Formation of the National Biological Survey. 1993. *A biological survey for the Nation*. Washington, D.C.: National Academy Press.
- Congressional Record*. 1987. Washington, D.C.: Government Printing Office.
- Congressional Record*. 1988. Washington, D.C.: Government Printing Office.
- Congressional Record*. 1989. Washington, D.C.: Government Printing Office.
- Connell, Joseph H. 1978. Diversity in tropical rain forests and coral reefs: High diversity of trees and corals is maintained only in a nonequilibrium state. *Science* 199 (March): 1302-1309.
- Conway, Kevin Chalk. 1997. "Letter to the editor." *The Sun News*, (March 2), 4D.
- Cooper, Daniel S., and Dan L. Perlman. 1997. Habitat conservation on military installations. *Fremontia* 25 (January): 3-8.

- Corson, Walter H. 1995. Linking sustainability indicators to performance goals at national and subnational levels. In *A sustainable world: Defining and measuring sustainable development*. Thaddeus C. Trzyna and Julia K. Osborn, eds. Sacramento, CA: The World Conservation Union.
- Costanza, Robert. 1991. *Ecological economics: The science and management of sustainability*. New York: Columbia University Press.
- Creswell, John W. 1994. *Research design: Qualitative & quantitative approaches*. London: Sage.
- Crosby, Ned. 1995. Citizen juries: One solution for difficult environmental questions. Edited by Renn, Webler, and Wiedemann. In *Fairness and competence in citizen participation*. Boston: Kluwer Academic Publishers.
- Crowfoot, James E., and Julia M. Wondolleck. 1990. *Environmental disputes: Community involvement in conflict resolution*. Covelo, CA: Island Press.
- Dahl, Robert A. 1961. *A preface to democratic theory*. Chicago: The University of Chicago Press.
- Daly, Herman. 1994. *For the common good: Redirecting the economy toward community, the environment, and a sustainable future*. 2d ed. Boston: Beacon Press.
- Daly, Herman, and J. B. Cobb. 1989. *For the common good*. London: Green Print.
- Dardia, Michael, Kevin F. McCarthy, Jesse Malkin, and Georges Vernez. 1996. *The effects of military base closures on local communities: A short-term perspective*. Santa Monica, CA: RAND.
- Dasmann, Raymond F. 1985. Achieving the sustainable use of species and ecosystems. *Landscape Planning* 12: 211-219.
- Davis, David Howard. 1998. *American environmental politics*. Chicago: Nelson-Hall Publishers.
- DeGrove, John M., and Patricia M. Metzger. 1991. *Balanced growth: A planning guide for local government*. Washington, D.C.: International City Management Association.

- Denzin, Norman K., and Yvonna S. Lincoln. 1994. *Handbook of qualitative research*. London: Sage.
- Denzin, Norman K., and Yvonna S. Lincoln, eds. 1998. *Strategies of qualitative inquiry*. Newbury Park, CA: Sage.
- Defense Conversion Commission. 1992. *Adjusting to the drawdown*. Washington, D.C.: Government Printing Office.
- deLeon, Peter. 1997. *Democracy and the policy sciences*. New York: State University of New York Press.
- Department of Defense. 1993. *BRAC cleanup plan guidebook: Implementing President's Clinton's decision to promote early reuse of closing bases by expediting environmental cleanup*. Washington, D.C.: Government Printing Office.
- Department of Defense. 1994. *Base realignment and closure policy and guidance: Book 2*. Washington, D.C.: Government Printing Office.
- Department of Defense. 1995. *Fast-track Cleanup: Successes and challenges*. Washington, D.C.: Government Printing Office.
- Department of Defense. 1996. *Base reuse implementation manual: February 1996*. Washington, D.C.: Government Printing Office.
- Department of Defense. 1999. *FY2000 Environmental Security Budget, Defense Department's fiscal year 2000 budget proposal*. Washington, D.C.: Government Printing Office.
- Department of Defense and The Nature Conservancy. 1996. *Conserving biodiversity on military lands: A handbook for natural resource managers*. Washington, D.C.: Government Printing Office.
- Dering, Robert Scott. 1996. *The politics of military base closures: 1988-1995*. Ph.D. diss., University of Kansas.
- Des Jardins, Joseph R. 1997. *Environmental ethics: An introduction to environmental philosophy*. Boston: Wadsworth Publishing Company.

- Design Works Inc. 1998. Urban village redevelopment master plan: Myrtle Beach South Carolina. Prepared for Myrtle Beach Air Base Redevelopment Authority & City of Myrtle Beach Planning Department.
- De Tocqueville, Alexis de. 1969. *Democracy in America*. Edited by J.P. Mayer and translated by George Lawrence. New York: Anchor Books.
- Devall, Bill, and George Sessions. 1985. *Deep ecology: Living as if nature mattered*. Salt Lake City: Peregrine Smith Books.
- Dewar, Helen. 1999. "Senate blocks base closings." *The Washington Post*, (May 27), A13.
- DiSilvestro, Roger L. 1993. *Reclaiming the last wild places: A new agenda for biodiversity*. New York: John Wiley & Sons.
- Dobson, Andrew. 1996. Environmental sustainabilities: An analysis and typology. *Environmental Politics* 5 (Autumn): 401-428. Edited by A.P. Dobson, A.P. 1996. *Conservation and Biodiversity*. New York: Scientific American Library.
- Downs, Anthony. 1994. *New visions for metropolitan America*. Washington, D.C.: The Brookings Institution.
- Dryzek, John S. 1995. Political and ecological communication. *Environmental Politics* 4 (Winter): 13-30.
- Dunlap, Thomas R. 1998. *Saving America's Wildlife*. Princeton, NJ: Princeton University Press.
- Durbin, Kathie. 1997. Sawdust memories. *The Amicus Journal* (Fall).
- Durning, Alan Thein. 1992. How much is enough? In *The consumer society and the future of the Earth*. NY: W. W. Norton & Co.
- Durning, Alan Thein. 1993. *Guardians of the land: Indigenous people and the health of the Earth*. Washington, D.C.: Worldwatch Paper.
- Eaton, Ellen. 1994. Editorial: "It's time to go public on the theme park." *The Sun News*, (14 January), 4D.

The Ecologist. 1992. Is poverty the problem? *The Ecologist* 22 (July/August): 166-172.

Economic Report of the President. 1999. *Economic report of the President*. Washington, D.C.: Government Printing Office.

Edwards, Mike. 1994. Lethal legacy. *National Geographic* (August): 78-113.

Ehrenfeld, David. 1995. *To preserve biodiversity: An overview*. Cambridge, MA: Blackwell Science.

Environmental Protection Agency. 1992. *Biological populations as indicators of environmental change*. Washington, D.C.: Government Printing Office.

Environmental Protection Agency. February 1996. *Guidance for implementing the fast track cleanup program at closing or realigning military bases*. Washington, D.C.: U.S. Department of Commerce.

Euston, Stanley R. 1995. *Gathering hope: A citizen's call to a sustainability ethic for guiding public life*. Santa Fe, NM: Sustainability Project Civic Dialog Program.

Evans, Rowland, and Robert Novak. 1999. Can we fight the next war? If we continue to neglect our soldiers, the answer may be no. *Readers Digest* (May): 85-89.

Fagence, Michael. 1977. *Citizen participation in planning*. Oxford: Pergamon Press.

Faludi, A. 1985. A decision-centered view of environmental planning. *Landscape Planning* 12: 239-256.

Feshbach, Murray, and Alfred Friendly, Jr. 1992. *Ecocide in the USSR: Health and nature under siege*. New York: BasicBooks.

Feurt, Ward, Refuge Complex Manager, U.S. Fish & Wildlife Service. 1998. Interviewed by author, 18 September, Newington. Tape Recording. Great Bay Wildlife Refuge, Newington, New Hampshire.

- Finger, Matthias, and James Kilcoyne, Jr. 1995. Learning our way out: Indicators of social environmental learning. In *A sustainable world: Defining and measuring sustainable development*. Thaddeus C. Trzyna and Julia K. Osborn, eds. Sacramento CA: The World Conservation Union.
- Fishbein, Bette K. 1994. *Germany, garbage, and the green dot: Challenging the throwaway society*. New York: INFORM.
- Fishkin, J. S. 1991. *Democracy and deliberation: New directions for democratic reform*. New Haven: Yale University Press.
- Foster's Daily Democrat*. 1990. "Gregg wants land transfer for Pease wildlife refuge." *Foster's Daily Democrat*, (March 27), A1.
- Foster's Daily Democrat*. 1990. "Writer of Bechtel expose' to speak in Portsmouth." *Foster's Daily Democrat*, (July 13).
- Fox, Warwick. 1984. Deep Ecology: A new philosophy for our time? *Ecologist* 14 (November-December): 194-200.
- Foy, George. 1990. Economic sustainability and the preservation of environmental assets. *Environmental Management* 14: 771-778.
- French, Hilary F. 1990. *Worldwatch paper 99, Green revolutions: Environmental reconstruction in Eastern Europe and the Soviet Union*. Washington, D.C.: Worldwatch Institute.
- Fricker, Alan. 1998. Measuring up to sustainability. *Futures* 30: 367-375.
- Frieden, Bernard J. 1979. *The environmental protection hustle*. Cambridge, Massachusetts: The MIT Press.
- Friedman, Milton. 1962. *Capitalism and freedom*. Chicago: University of Chicago Press.
- GAO/NSIAD-95-3. November 1994. *Military bases: Reuse plans for selected bases closed in 1988 and 1991*. Washington, D.C.: Government Accounting Office.

- GAO/NSIAD-95-70. February 1995. *Military bases: Environmental impact at closing installations*. Washington, D.C.: Government Accounting Office.
- GAO/NSIAD-95-133. 1995. *Military bases: Analysis of DoD's 1995 process and recommendations for closure and realignment*. Washington, D.C.: Government Accounting Office.
- GAO/NSIAD-95-139. August 1995. *Military bases: Case studies on selected bases closed in 1988 and 1991*. Washington, D.C.: Government Accounting Office.
- GAO/NSIAD-96-67. 1996. *Military bases: Closure and realignment savings are significant, but not easily quantified*. Washington, D.C.: Government Accounting Office.
- GAO/NSIAD-96-149. August 1996. *Military bases: Update on the status of bases closed in 1988, 1991, and 1993*. Washington, D.C.: Government Accounting Office.
- GAO/NSIAD-97-151. July 1997. *Military bases: Lessons learned from prior base closure rounds*. Washington, D.C.: Government Accounting Office.
- Garwood, Alfred N., ed. 1988 *Regional differences in America: A statistical sourcebook*. Seattle, WA: Numbers & Concepts.
- George, Clive. 1999. Testing for sustainable development through environmental assessment. *Environmental Impact Assessment Review* 19: 175-200.
- Gibeau, Beth, Lowry Air Force Base Disposal Agency Environmental Coordinator, Lowry Air Force base. 1998. Interviewed by author, 17 August, Denver. Tape recording over the phone. Colorado Springs, Colorado.
- Ginsberg, King, Jschaengold, and Berteau. 1993. Waging peace: A practical guide to base closures. *Public Contract Law Journal* 23 (Fall): 171.
- Glaser B. 1978. *Theoretical Sensitivity*. Mill Valley, CA: Sociology Press.
- Glaser B., and A. Strauss. 1967. *The discovery of grounded theory*. Chicago: Aldine.
- Glopin, Gliberto. 1994. *Impoverishment and sustainable development: A systems approach*. Winnipeg: International Institute for Sustainable Development.

- Goldman, Benjamin A., Judith Shapiro, John T. O'Conner, Rob Inerfeld, and Eric Weltman. 1995. *Sustainable America: New public policy for the 21st century*. Washington, D.C.: U.S. Department of Commerce, Economic Development Administration.
- Goodland, Robert, and Herman Daly. 1995. Environmental sustainability. Edited by Vanclay and Bronstein. In *Environmental and social impact assessment*. New York: John Wiley & Sons.
- Goodstein, E. B. 1993. *Jobs and the environment: The myth of a national trade-off*. Washington, D.C.: Economic Policy Institute.
- Gorbachev, Mikhail S. 1999. *Global Green USA*.
<http://www.globalgreen.org/ggusa.html>, April 28.
- Gore, Al. 1992. *Earth in the balance: Ecology and the human spirit*. New York: Houghton Mifflin Company.
- Goudie, Andrew. 1994. *The human impact on the natural environment*. Cambridge, MA: MIT Press.
- Goudy, Willis J. 1990. Community attachment in a rural region. *Rural Sociology* 55: 178-198.
- Government Accounting Office. 1995. *Military bases: Case studies on selected bases closed in 1988 and 1991*. Washington, D.C.: Government Printing Office.
- Graham, Bradley. 1999. "Senate panel votes against new round of military base closings." *The Washington Post*, (May 14), A8.
- Grant, Jill, Patricia Manuel, and Darrell Joudrey. 1996. A framework for planning sustainable residential landscapes. *Planning* 62 (Summer): 331-345.
- Green, Judith. 1998. Commentary: Grounded theory and the constant comparative method. *British Medical Journal* 316 (April): 1064-1066.
- Grosse, W. Jack. 1992. *The protection and management of our natural resources, wildlife, and habitat*. Dobbs Ferry, NY: Oceana Publications.

- Grumbine, R. Edward. 1994. *Environmental policy and biodiversity*. Washington, D.C.: Island Press.
- Guimond, Dan, Planner, In Motion Inc. 1998. Interview by author, 26 January, Denver. Hand written notes. Denver, Colorado.
- Gundersen, Adolf G. 1995. *The environmental promise of democratic deliberation*. Madison, WI: The University of Wisconsin Press.
- Gunn, Alastair S. 1998. Rethinking communities: Environmental ethics in an urbanized world. *Environmental Ethics* 20 (Winter): 341-343.
- Hamilton, Alexander, James Madison, and John Jay. 1961 (1788). *The federalist papers*. Edited by Clinton Rossiter. New York: Mentor.
- Hampson, Fen Osler, and Judith Reppy, eds. *Earthly goods, environmental change, and social justice*. Ithaca: Cornell University Press.
- Hancock, Trevor, and Robert Gibson. 1996. Healthy, sustainable communities. *Alternatives Journal* 22 (April-May): 18-24.
- Hatcher, Patrick Lloyd. 1994. *Economic earthquakes: Converting defense cuts to economic opportunities*. Berkeley, CA: Institute of Governmental Studies Press.
- Hargrove, E. C. 1989. *Foundations of environmental ethics*. New York: Prentice Hall.
- Harker, Donald F., and Elizabeth Ungar Natter. 1995. *Where we live: A citizen's guide to conducting a community environmental inventory*. Washington, D.C.: Island Press.
- Harless, James D. 1992. Local government environmental advisory boards (The civic environmentalist). *National Civic Review* 81 (Winter-Spring): 9-18.
- Haughton, Graham, and Colin Hunter. 1994. Managing sustainable urban development. In *Perspectives towards sustainable environmental development*. Colin C. Williams and Graham Haughton, eds. Hong Kong: Avebury.
- Hayward, Bronwyn M. 1995. The greening of participatory democracy: Reconsideration of theory. *Environmental politics* 4 (Winter): 215-236.

- Healey, Patsy, and Tim Shaw. 1993. Planners, plans, and sustainable development. *Regional Studies* 27 (December): 769-777.
- Hebert, Josef H. 1999. "Democrats, Republicans agree on concept of land conservation." *The Denver Post*, (April 22), 34A.
- Hicks, Ron. 1993. Improved decisionmaking for sustainability. *Journal of Soil and Water Conservation* 48 (May-June): 157-158.
- Holmberg, Johan, ed. 1992. *Making development sustainable: Redefining institutions, policy, and economics*. Washington, D.C.: Island Press.
- Hostetter, Brian, Wildlife Biologist, Oceania Naval Air Station. 1998. Interview by author, 11 May, Colorado Springs. Tape recording, National Military Fish and Wildlife Association, Law Enforcement Seminar. Colorado Springs, Colorado.
- Hoover, Anne P., and Margaret A. Shannon. 1995. Building greenway policies within a participatory democracy framework. *Landscape and urban planning* 33: 433-459.
- Hrebenar and Scott. 1990. *Interest group politics in America*. Englewood, NJ: Prentice Hall.
- Hubbard, Alice, and Clay Fong. 1995. *Community energy workbook: A guide to building a sustainable economy*. Snowmass, CO: Rocky Mountain Institute.
- Hunter, Jeannine F. 1996. "Base's possible futures are revealed." *The Sun News*, (December 3), 1C.
- International Union for Conservation of Nature and Natural Resources, United Nations Environmental Programme, and the World Wildlife Fund. 1980. *World conservation strategy: Living resource conservation for sustainable development*. Washington, D.C.: IUCN-UNEP-WWF.
- IUCN International Assessment Team. 1995. Assessing progress toward sustainability: A new approach. In *A sustainable world: Defining and measuring sustainable development*. Thaddeus C. Trzyna and Julia K. Osborn, eds. Sacramento, CA: The World Conservation Union.

- Jackson, Wes. 1994. *Becoming native to this place*. Lexington, KY: The University Press of Kentucky.
- Jacques, Shirley. 1995. "Great Bay dedicated now a national refuge." *Portsmouth Herald*, (May 5), A1.
- Jenkins, J. Craig, and Charles Perrow. 1977. Insurgency of the powerless: Farm worker movements (1946-1972). *American Sociological Review* 42 (April): 249-268.
- John, DeWitt. 1994. *Civic Environmentalism: Alternatives to regulations in states and communities*. Washington, D.C.: Congressional Quarterly.
- Joyce, Karen Mecartney. 1998. Community structure and political participation. Paper presented at the *Annual Meeting of the American Political Science Association* (September).
- Judge, David, Gerry Stoker, and Harold Wolman, eds. 1995. *Theories of urban politics*. Thousand Oaks, CA: Sage.
- Katz, Alan. 1998. "Denver looks to Portland for answers." *The Denver Post online*. www.denverpost.com/news/metro3.htm, February 25.
- Katz, Ian. 1999. Save the species – but add incentives. *Business Week* (January 18): 63-64.
- Kellert, Stephen R. 1996. *The value of life: Biological diversity and human society*. Washington, D.C.: Island Press.
- Kendall, Henry, coordinator. 1992. *World Scientist's Warning to Humanity*. Washington, D.C.: Union of Concerned Scientists.
- Kirk, Jerome, and Marc L. Miller. 1986. *Reliability and validity in qualitative research*. London: Sage.
- Kozlowski, J., and G. Hill. 1993. *Towards planning for sustainable development*. Cornwall, Great Britain: Averbury.
- Kudelka, Bob, Tim Flach, and Joey Holleman. 1998. "Horry County ranks third in population growth in S.C.: Georgetown, Brunswick also booming." *The Sun News*, (March 18), 1A.

- Kuik, Onno, and Harmen Verbruggen. 1991. *In search of indicators of sustainable development*. Boston: Kluwer Academic Publishers.
- Kvale, Steinar. 1996. *Interviews: An introduction to qualitative research interviewing*. Thousand Oaks, CA: Sage.
- Lafferty, William M. 1996. The politics of sustainable development: Global norms for national implementation. *Environmental Politics* 5 (Summer): 185-208.
- Langner, Linda L., and Curtis H. Flather. 1994. *Biological diversity: Status and trends in the United States*. Washington, D.C.: Government Printing Office.
- Leedy, Daniel L. 1979. *An annotated bibliography on planning and management for urban-suburban wildlife*. Washington, D.C.: U.S. Fish & Wildlife Service.
- Lele, Sharachchandra M. 1991. Sustainable development: A critical review. *World Development* 19: 607-621.
- Leopold, Aldo. 1966. *A Sand County almanac*. New York: Ballantine.
- Leopold, Aldo. 1989. Quoted in *Our environment: What can you do?* Fort Sill, OK: Center for Environmental Initiatives and hands on training.
- Lewis, Philip H., Jr. 1996. *Tomorrow by design: A regional design process for sustainability*. New York: John Wiley & Sons, Inc.
- Levy, Michael B. 1982. *Political thought in America: An anthology*. 2d ed. Chicago, IL: The Dorsey Press.
- Logan, Bob. 1997. "Letter to the editor/the readers' opinions." *The Sun News*, (June 1), 4D.
- Logan, John R., and Harvey Molotch. 1987. *Urban fortunes: The political economy of place*. Berkeley: University of California Press.
- Logan, John R., and Todd Swanstrom, eds. 1990. *Beyond the city limits: Urban policy and economic restructuring in comparative perspective*. Philadelphia: Temple University Press.

- Lundberg, Ferdinand. 1989. *The myth of democracy*. New York: Carol Publishing Group.
- Lynn, Frances M., and George J. Busenberg. 1995. Citizen advisory communities and environmental policy: What we know, what's left to discover. *Risk Analysis* 15: 147-162.
- Mac, Michael J., Project Director. 1998. *Preview of the status and trends of the nation's biological resources*. Washington, D.C.: U.S. Department of the Interior.
- Mann, C. Charles, and Mark L. Plummer. 1995. *Noah's choice: The future of endangered species*. New York: Alfred A. Knopf.
- Marien, Michael. 1996. *Environmental issues and sustainable futures: A critical guide to recent books, reports, and periodicals*. Bethesda, Maryland: World Future Society.
- May, Allan. 1978. *Voice in the wilderness*. Chicago: Nelson-Hall.
- May, Graham. 1994. Sustainability and the future. In *Perspectives towards sustainable environmental development*. Colin C. Williams, and Graham Haughton, eds. Hong Kong: Avebury.
- MBD1. 1993. *Preliminary final environmental impact statement, disposal and reuse of Myrtle Beach Air Force base, South Carolina*. Washington, D.C.: Government Printing Office.
- MBD2. 1993. *Record of decision, final environmental impact statement for the disposal and reuse of Myrtle Beach Air Force Base*. Washington, D.C.: Government Printing Office.
- MBD3. 1993. *Myrtle Beach Air Force Base, community redevelopment plan*. Myrtle Beach City, SC: EDAW, Inc.
- MBD4. 1993. *General redevelopment plan for the air base planning area*. Myrtle Beach City, SC: Air Base Redevelopment Commission.
- MBD5. 1992. *Myrtle Beach Jetport master plan and base re-utilization study, final report*. Horry County, SC: Horry County Council.

- MBD7. 1995. *Community relations plan*. Washington, D.C.: Government Printing Office.
- McCuen, Gary E., ed. 1993. *Toxic nightmare: Ecocide in the USSR & eastern Europe*. Hudson, WI: Gary E. McCuen Publications, Inc.
- McDonnell, M. J., and S. T. A. Pickett. 1993. *Humans as components of ecosystems: The ecology of subtle human effects and populated areas*. New York: Springer-Verlag.
- McManamy, Rob. 1993. Flood recovery begins to gain momentum. *ENR* (Nov): 22-26.
- Meadowcraft, James. 1997. Planning, democracy, and the challenge of sustainable development. *International Political Science Review* 18: 167-189.
- Meadows, Donell, Dennis Meadows, Jorgen Randers, and William W. Behrens III. 1974. *The limits to growth: A report for the Club of Rome's project on the predicament of mankind*. New York: Signet.
- Merchant, Carolyn. 1992. *Radical ecology: The search for a livable world*. New York: Routledge.
- Merx, Katie. 1997. "MB council hears plan for base urban center." *The Sun News*, (July 9), 1C.
- Meyer, S. M. October 1992. *Environmentalism and economic prosperity: Testing the environmental impact hypothesis*. Cambridge, MA: Massachusetts Institute of Technology Project on Environmental Politics and Policy.
- Milbrath, Lester W. 1989. *Envisioning a sustainable society: Learning our way out*. Albany, NY: State University of New York Press.
- Miles, Matthew B., and A. Michael Huberman. 1994. *Qualitative data analysis: An expanded sourcebook*. London: Sage.
- Miller, Melissa Kary. 1998. Social ties and political participation: Assessing a dynamic relationship. Paper presented at the *Annual Meeting of the American Political Science Association* (September).

- Mitchell, Joni. 1970. Big Yellow Taxi. *Ladies of the canyon*.
<http://www.jonimitchell.com/ladies70lyricsHome.html>, March 16, 1999.
- Molotch, Harvey L. 1976. The city as a growth machine: Toward a political economy of place. *American Journal of Sociology* 82 (September): 309-32.
- Molotch, Harvey L. 1993. The political economy of growth machines. *Journal of Urban Affairs* 15: 29-53.
- Moore, Solomon. 1993. "MB resort plan has green light." *The Sun News* (June 16): 6A.
- Morey, Edward R. 1985. Desertification from an economic perspective. *Ricerche Economiche* 39: 550-560.
- Morgan, Mike, and Isaac Bailey. 1998. "Public's concerns addressed at civic fair: Development, schools among topics." *The Sun News*, (March 29), 8A.
- Morris, Scott. 1993. "Horry tries to sway MB on jetport." *The Sun News*, (January 30), 1C.
- Morrison Environmental Directory. *The Complete Environmental Service Directory*. Wichita, Kansas: Morrison Environmental Directory, Inc.
- Morrison, Roy. 1995. *Ecological democracy*. Boston: South End Press.
- Moulton, Jennifer T. 1999. "Denver acts to undo family flight". *The Denver Post Online*. <http://www.denverpost.com/opinion/moul1227.htm>, February 17.
- Munro, David A., and Martin W. Holdgate. 1991. *Caring for the Earth: A strategy for sustainable living*. Gland Switzerland: IUCN-The World Conservation Union.
- Munro, David A. 1995. Sustainability: Rhetoric or reality? In *A sustainable world: Defining and measuring sustainable development*. Thaddeus C. Trzyna and Julia K. Osborn, eds. Sacramento, CA: International Institute of Public Affairs.
- Myers, Norman. 1992. *The primary source: Tropical forests and our future*. New York: W. W. Norton.

- Myers, Norman. 1996. *Ultimate security: The environmental basis of political stability*. Washington, D.C.: Island Press.
- Myrtle Beach Area Chamber of Commerce. 1990. *Myrtle Beach and South Carolina's Grand Strand: A demographic profile*. Myrtle Beach, SC: Myrtle Beach Area Chamber of Commerce.
- Myrtle Beach Area Chamber of Commerce. 1991. *Myrtle Beach and South Carolina's Grand Strand: A demographic profile*. 2d ed. Myrtle Beach, SC: Myrtle Beach Area Chamber of Commerce.
- Myrtle Beach Area Chamber of Commerce. 1998. *Myrtle Beach and South Carolina's Grand Strand: A demographic profile*. Myrtle Beach, SC: Myrtle Beach Area Chamber of Commerce.
- Naess, Arne. 1984. A defense of the Deep Ecology Movement. *Environmental Ethics* 6 (Fall): 264.
- Narvaes, Emily. 1997. "Development of Lowry site in high gear: Homes, parks, businesses prepare to break ground." *The Denver Post*, (September 19), 1A & 24A.
- Nash, R. F. 1989. *The rights of nature: A history of environmental ethics*. The University of Wisconsin Press.
- Nathan, Sarah. 1991. "Locals stand up for Pease refuge." *Portsmouth Herald*, (March 10), A1.
- Nathani, Njoke C. 1996. Sustainable development, indigenous forms of food processing technologies: A Kenyan Case Study. Ph.D. diss., University of Toronto.
- National Association of Installation Developers (NAID). 1998a. Inhofe amendment creates tougher closure threshold -- Pentagon spokesman: Cohen has not given up on more BRAC rounds. *NAID News*. www.cedar.ca.gov/military/current_reuse/norton.htm, March 31.
- National Association of Installation Developers (NAID). 1998b. From NAID News. *NAID News*. <http://naid.org/naid/naidnews/latest.html>, April 8.

- Natural Resource Protection Committee. 1989a. Letter from the Natural Resource Protection Committee to the United States Department of Interior, 22 September. Copy on file in the Pease Redevelopment Authority Library, Portsmouth, New Hampshire.
- Natural Resources Protection Committee. August 1989b. Report of the Natural Resource Protection Committee relative to a proposed national wildlife refuge along the shore line of the Great Bay Estuary. Newington, NH: Pease Redevelopment Commission.
- Natural Resource Protection Committee. 1990. Natural Resource Protection Committee minutes. (March 14) Photocopied.
- Naveh, Z. 1994. Interaction of landscapes and cultures. *Landscape and Urban Planning* 32: 43-54.
- Newington Master Plan. 1991. *Master plan: Town of Newington, 1990 to the year 2000*. Newington, NH: City of Newington.
- Nijkamp, Peter, and Frits Soeteman. 1988. Ecologically sustainable economic development: Key issues for strategic environmental management. *International Journal of Social Economics* 15: 88-102.
- Norberg-Bohm, Vicki. 1996. Technological change for sustainable development: Lessons from the electric power sector in Mexico. Ph.D. diss., Harvard University.
- Norgaard, Richard B. 1988. Coevolutionary development potential. *Land Economics* 60: 160-173.
- Norse, Elliott A. 1993. *Global marine biological diversity: A strategy for building conservation into decision making*. Washington, D.C.: Island Press.
- Noss, Reed. 1987. Protecting natural areas in fragmented landscapes. *Natural Areas Journal* 7: 2-13.
- Noss, Reed F., and Allen Y. Cooperrider. 1994. *Saving nature's legacy: Protecting and restoring biodiversity*. Washington, D.C.: Island Press.
- Norton, Bryan G. 1986. *The preservation of species: The value of biological diversity*. Princeton, NJ: Princeton University Press.

- NSIAD-95-3. November 1994. *Military bases: Reuse plans for selected bases closed in 1988 and 1991*. Washington, D.C.: Government Accounting Office.
- NSIAD-95-70. February 1995. *Military bases: Environmental impact at closing installations*. Washington, D.C.: Government Accounting Office.
- NSIAD-95-133. 1995. *Military bases: Analysis of DoD's 1995 process and recommendations for closure and realignment*. Washington, D.C.: Government Accounting Office.
- NSIAD-95-139. August 1995. *Military bases: Case studies on selected bases closed in 1988 and 1991*. Washington, D.C.: Government Accounting Office.
- NSIAD-96-67. 1996. *Military bases: Closure and realignment savings are significant, but not easily quantified*. Washington, D.C.: Government Accounting Office.
- NSIAD-96-149. August 1996. *Military bases: Update on the status of bases closed in 1988, 1991, and 1993*. Washington, D.C.: Government Accounting Office.
- NSIAD-97-151. July 1997. *Military bases: Lessons learned from prior base closure rounds*. Washington, D.C.: Government Accounting Office.
- O'Conner, John C. 1995. Toward environmentally sustainable development: Measuring progress. In *A sustainable world: Defining and measuring sustainable development*. Trzyna, Thaddeus C. and Julia K. Osborn, eds. Sacramento, CA: The World Conservation Union.
- OECD. 1991. *Environmental indicators: A preliminary set = Indicateurs d'environnement: Une etude pilote*. Paris: OECD Publications.
- Office of Economic Adjustment. 1993. *Civilian reuse of former military bases: A summary of completed military base adjustment projects*. Washington D.C.: Department of Defense.
- Office of Economic Adjustment. 1995. *Department of Defense: Community guide to base reuse*. Washington, D.C.: Office of Assistant Secretary of Defense for Economic Security.

- Oldfield, Margery L. 1991. *Biodiversity: Culture, conservation, and ecodevelopment*. Washington, D.C.: Island Press.
- Organisation for Economic Co-operation and Development. 1991. *Environmental indicators: A preliminary set*. Washington, D.C.: OECD Publications and Information Centre.
- Orr, David W. 1994. *Earth in mind: On education, environment, and the human prospect*. Washington, D.C.: Island Press.
- Orr, David W. 1992. *Ecological literacy: Education and the transition to a postmodern world*. Albany, NY: State University of New York Press.
- O'Riordan, Timothy. 1988. The politics of sustainability. In *Sustainable environmental management: Principles and practice*. R.K. Turner, ed. London: Belhaven Press.
- O'Riordan, Tim, and Heather Voisey. 1997. The political economy of sustainable development. *Environmental Politics* 6 (Spring): 1-23.
- Osborne D., and T. Gaebler. 1992. *Reinventing Government*. Reading, MA: Addison-Wesley.
- O'Sullivan, Elizabethann, and Gary R. Russel. 1995. *Research methods for public administrators*. White Plains, NY: Longman Publishers.
- O'Toole, Laurence J., ed. 1993. *American intergovernmental relations: Foundations, perspectives, and issues*. Washington, D.C.: CQ Press.
- Owen, Oliver S., and Daniel D. Chiras. 1990. *Natural resource conservation: An ecological approach*. New York: Macmillian Publishing Company.
- PD1. 1990. *Final environmental impact statement for the closure of Pease Air Force Base*. Washington, D.C.: Government Printing Office.
- PD2. 1991. *Final environmental impact statement for Pease Air Force Base disposal and reuse*. Washington, D.C.: Government Printing Office.
- PD3. 1991. *Record of decision, disposal and reuse of Pease Air Force Base*. Washington, D.C.: Government Printing Office.

- PD4. 1989. *Pease Air Force Base comprehensive redevelopment plan: Scope of work*. Portsmouth, NH: Bechtal Corporation.
- PD5. 1990. *Pease Air Force Base comprehensive redevelopment plan: Phase 1*. Portsmouth, NH: Bechtal Corporation.
- PD6. 1990. *Pease preferred development concept*. Portsmouth, NH: Bechtal Corporation.
- PD7. 1990. *Pease Air Force Base comprehensive development plan*. Portsmouth, NH: Bechtal Corporation.
- PD9. 1990. *Base personnel survey*. Portsmouth, NH: Pease Redevelopment Commission.
- Pearce, David W. 1987. Foundations of an ecological economics. *Ecological Modeling* 38: 9-18.
- Pearce, Davide W. and Jeremy J. Warford. 1993. *World without end: Economics, environment, and sustainable development*. New York: Oxford University Press.
- The Pease Report*. 1990a. The town that isn't taken seriously. *The Pease Report* 4 (March 15): 3.
- The Pease Report*. 1990b. Slim chance of apathy on the Seacoast: Five watchdog groups, no waiting. *The Pease Report* 12 (July 31): 5.
- Perez-Giese, Tony, Staff Writer, *Westword*. 1998. Interviewed by author, 3 August, Denver. Hand written notes, *Westword*, Denver, Colorado.
- Perrings, C. A. 1994. *Biodiversity conservation: Problems and policies*. Boston: Kluwer Press.
- Perry, William J. 1996. *Handbook for Natural Resource Managers*. Washington, D.C.: Department of Defense and The Nature Conservancy.
- Peterson, Paul E. 1981. *City limits*. Chicago: University of Chicago Press.
- Peterson, D. J. 1993. *Troubled lands: The legacy of Soviet environmental destruction*. Boulder, CO: Westview Press.

- Pezzoli, Keith. 1997a. Sustainable development: A transdisciplinary overview of the literature. *Journal of Environmental Planning and Management* 40: 549-574.
- Pezzoli, Keith. 1997b. Sustainable development literature: A transdisciplinary bibliography. *Journal of Environmental Planning and Management* 40: 575-601.
- Pezzy, John. Definitions of Sustainability. Working Paper. Fellow, Environment and Behavior Program Institute of Behavioral Sciences University of Colorado, Boulder, CO.
- Pick, Maritza. 1993. *How to save your neighborhood, city, or town: The Sierra Club guide to community organizing*. San Francisco. Sierra Club Books.
- Pirages, Dennis Clark, ed. 1977. *The sustainable society: Implications for limited growth*. New York: Praeger Publishers.
- Platt, John R. 1969. What must we do? *Science* 166 (November): 1115-1121.
- Platt, John R., and Richard A. Cellarius. 1972. Councils of urgent studies: Coordinating councils could force legitimate research and solutions of our major crises. *Science* 177 (August): 670-676.
- Polsby, Nelson W. 1980. *Community power and political theory: Further look at problems of evidence and interference*. New Haven: Yale University Press.
- Porter, Douglas R. and David A. Salvesen. 1995. *Collaborative planning for wetlands and wildlife: Issues and examples*. Washington, D.C.: Island Press.
- Porter, M.E. 1991. America's green strategy. *Scientific American* (April): 168.
- Power, Thomas Michael. 1996. *Environmental protection and economic well-being: Economic pursuit of quality, second edition*. Armonk, New York: M. E. Sharpe.
- President's Council on Sustainable Development. 1996. *Sustainable America: A new consensus*. Washington, D.C.: Government Printing Office.

- President's Economic Adjustment Committee. 1986. *1961-1986: 25 Years of civilian reuse*. Washington, D.C.: Government Printing Office.
- President's Economic Adjustment Committee. 1994. *Organizing for economic adjustment*. Washington, D.C.: Government Printing Office.
- Press, Daniel. 1994. *Democratic dilemmas in the age of ecology*. London: Duke University Press.
- Press, Daniel. 1998. Local environmental policy capacity: A framework for research. *Natural Resources Journal* 38 (Winter): 29-52.
- Public Law 94-431. 1976. Military construction and guard and reserve forces facilities authorization acts, 1977. *United States Statutes at Large* 90. Washington, D.C.
- Public Law 95-82. 1977. Military construction authorization act, 1978. *United States Statutes at Large* 91. Washington, D.C.
- Public Law 101-510. 1990. Closure and realignment of military installations. *United States Statutes at Large* 104. Washington, D.C..
- Public Law 103-160. 1993. National defense authorization act for fiscal year 1994. *United States Statutes at Large* 107. Washington, D.C.
- Putnam, Robert D. 1995a. Bowling alone: America's declining social capital. *Journal of Democracy* 6: 65-78.
- Putnam, Robert D. 1995b. Tuning in, tuning out: The strange disappearance of social capital in America. *PS: Political Science and Politics* 28: 664-83.
- Pye-Smith, Charlie, Grazia Borrini Feyerabend, and Richard Sandbrook. 1994. *The wealth of communities: Stories of success in local environmental management*. West Hartford, CT: Kumarian Press.
- Ramsay, Meredith. 1996. *Community, culture, and economic development: The social roots of local action*. New York: State University of New York Press.

- Rapport, D. J., C. Gaudet, J. R. Karr, J. S. Baron, C. Bohlen, W. Jackson, B. Jones, R. J. Naiman, B. Norton, and M. M. Pollock. 1998. Evaluating landscape health: Integrating societal goals and biophysical process. *Journal of Environmental Management* 53: 1-15.
- Reardon, Betty, ed. 1994. *Learning peace: The promise of ecological and cooperative education*. New York: State University of New York Press.
- Rees, Judith. 1991. Equity and environmental policy. *Geography* 76 (October): 292-304.
- Regan, Tom. 1983. *The case for animal rights*. Berkeley: University of California Press.
- Renn, Webler, and Wiedeman, eds. 1995. *Fairness and competence in citizen participation*. Boston: Kluwer Academic Publishers.
- Richards, J. F. 1986. World environmental history and economic development. Edited by Clark, W.C. and R. E. Munn. *Sustainable Development of the Biosphere*. New York: Cambridge University Press.
- Rigsbee, Fred. 1993. "Air Base plans divide Myrtle Beach group." *Charleston Post Courier*, (March 21), 1-A & 16-A.
- Rocheftort, David A., and Roger W. Cobb., eds. 1994. *The politics of problem definition: Shaping the policy agenda*. Lawrence: University Press of Kansas.
- Rodiek, Jon., and Glenn DelGiudice. 1994. Wildlife habitat conservation: Its relationship to biological diversity and landscape sustainability: A national symposium. *Landscape and Urban Planning* 28: 1-3.
- Rogers, John J. W. and P. Geoffrey Feiss. 1998. *People and the Earth: Basic issues in the sustainability of resources and environment*. New York: Cambridge University Press.
- Rolston, H. 1988. *Environmental ethics: Duties to and values in the natural world*. New York: Temple University Press.
- Romm, Joseph J. 1993. *Defining national security: The nonmilitary aspects*. New York: Council of Foreign Relations Press.

- Romm, Joseph J. 1992. *The once & future super-power: How to restore America's economic, energy, and environmental security*. New York: William Morrow and Company, Inc.
- Roodman, David Malin. 1999. Building a sustainable society. In *State of the World: A Worldwatch Institute report on progress toward a sustainable society*. New York: W. W. Norton & Company.
- Rosenfeld, Jordon. 1997. Greenspace: Comparative perspectives on regional sustainability. *Public Management* 79 (January): 4-11.
- Rosenstone, Steven J., and John Mark Hansen. 1993. *Mobilization, participation and democracy in America*. New York: Macmillan Publishing Company.
- Rousseau, Jean-Jacques. 1987a. Discourse on political economy. In *The basic political writings*. Translated by Donald A. Cress. Indianapolis: Hackett Publishing Company.
- Rousseau, Jean-Jacques. 1987b. On the social contract. In *The basic political writings*. Translated by Donald A. Cress. Indianapolis: Hackett Publishing Company.
- Rowe, John Frink, and Fredrick M. Pickering. 1987. *Newington New Hampshire: A heritage of independence since 1630*. Canaan, NH: Phoenix Publishing.
- Ripley, Douglas, and Michele Leslie. 1997. Conserving biodiversity on military lands. *Federal Facilities Environmental Journal* (Summer): 93-105.
- Schneider, Anne Larason, and Helen M. Ingram. *Policy design for democracy*. Kansas: University Press of Kansas.
- Schrier, Jerry. 1989. Reader's Pease poll sets up agenda. *Portsmouth Press*, 14 April: 1 & 13.
- Schulte, Brigid. 1993. "Base closure easy; conversion tough: Officials bemoan stagnant process." *The Sun News*, (April 13), 1A & 8A.
- Schultz, Steven. 1990. "Tourist theme park still not favored." *Foster's Daily Democrat*, (April 13) 1.

- Schwab, Jim. 1997. The essence of sustainable planning. *American Forests* 103 (Autumn): 28-29.
- Scruggs, Patricia. 1993. *Guidelines for state level sustainable development*. Washington, D.C.: Center for Policy Alternatives.
- Sellers, Joe. 1993. "Leave base just as it is." *The Sun News*, (February 18), 4D.
- Selman, Paul. 1996. *Local sustainability: Managing and planning ecologically sound places*. London: Paul Chapman Publishing.
- Shain, Andrew. 1992a. "Differences over base use surface." *The Sun News*, (May 14), 1A & 8A.
- Shain, Andrew. 1992b. "MB, Horry officials clash over base runway, authority." *The Sun News*, (July 21), 1A.
- Shain, Andrew. 1992c. "Jetport proposal pie in the sky? Plan for 2nd runway, cargo hub defended." *The Sun News*, (September 27), 1A.
- Shain, Andrew. 1992d. "Tug-of-war for base worries developers." *The Sun News*, (August 19), 3A.
- Shain, Andrew. 1993a. "State-brokered shortcut to swap acreage at base for Sumter range goes forward." *The Sun News*, (February 11), 1C & 3C.
- Shain, Andrew. 1993b. "Second airstrip still fuels jetport debate." *The Sun News*, (January 12), 1C.
- Shain, Andrew. 1993c. "Horry's plan for base land called 'ruse.'" *The Sun News*, (February 9), 1C.
- Shaw, Brian R. 1999. *When are environmental issues security issues?* http://www.pnl.gov/ces/academic/ww_1shaw.htm, April 14.
- Shaw, Ed, Ralph Panzrino, and John Maxwell. 1993. "M. B. Jetport: Panacea or boondoggle." *Alternatives*, 10-14.
- Shearman, Richard. 1990. The meaning and ethics of sustainability. *Environmental Management: International Journal for Decision Makers and Scientists* 14 (Jan/Feb): 1-8.

- Sheng, Fulai. 1995. National economic indicators and sustainable development. In *A sustainable world: Defining and measuring sustainable development*. Thaddeus C. Trzyna and Julia K. Osborn, eds. Sacramento CA: The World Conservation Union.
- Siehl, George H., and Edward Knight. 1997. *Military base closures since 1988: Status and employment changes at the community and state level*. Washington, D.C.: Congressional Research Service.
- Simmons, Patrick A., ed. 1997. *Housing statistics of the United States, First Edition*. Lanham, Maryland: Bernan Press.
- Singer, P. 1990. *Animal liberation*. New York: Random House.
- Soule, M. E., and Kathryn A. Kohm. 1989. *Research priorities for conservation biology*. Washington, D.C.: Island Press.
- Spellerberg, Ian F., and Steve Hedges. 1992. *Biological conservation*. New York: Cambridge University Press.
- Statistical Policy Office. 1994. *Executive office of the President office of management and budget: Metropolitan areas, July*. Springfield, VA: U.S. Department of Commerce, National Technical Information Service.
- Stivers, Robert L. 1976. *The sustainable society: Ethics and economic growth*. Philadelphia: The Westminster Press.
- Stricker, Pamela Jean. 1996. Sustainable agriculture in Guatemala and Cuba: A theory of agenda-setting in development policy. Ph.D. diss., University of California, Riverside.
- Stroud, Nancy E., and Daniel W. O'Connell. 1986. Florida toughens up its land use laws. *Planning* (January): 324-337.
- Steelman, Toddi A. 1996. Democratic theory, public participation and national forest management: A case study of the Monongahela National Forest. Ph.D. diss., Program in Environmental and Natural Resource Policy, Department of the Environment, Duke University.

- Stillman, Richard J., II. 1996. *Public administration: Concepts and cases*. Boston, MA: Houghton Mifflin Company.
- General Carl W. Stiner, US Army. 1991. The strategic employment of special operations forces. *Squadron officer school nonresident programs - Force employment: Air Force roles and missions*. Washington, D.C.: Government Printing Office: 81-89.
- Stone, Clarence N. 1989. *Regime politics: Governing Atlanta 1946-1988*. Lawrence: University Press of Kansas.
- Stone, Clarence N. 1993. Urban regimes and the capacity to govern: A political economy approach. *Journal of Urban Affairs* 15: 1-28.
- Stone, Clarence N. 1994. Group politics reexamined: From pluralism to political economy. In *The dynamics of American politics: Approaches and interpretations*, eds. Lawrence C. Dodd and Calvin Jillson. Boulder: Westview Press.
- Stone, Clarence N., and Heywood T. Sanders, eds. 1987. *The politics of urban development*. Lawrence: University of Kansas Press.
- Stone, Deborah. 1997. *Policy paradox: The art of political decision making*. New York: W. W. Norton & Company.
- Stone, Kirk, Assistant Director for Energy Policy. 1998. Interviewed by author, 22 September, Concord. Tape recording. Governor's Office of Energy and Community Services, Concord, New Hampshire.
- Strauss, A. 1987. *Qualitative analysis for social scientists*. New York: Cambridge University Press.
- Strauss, Anselm L., and Juliet Corbin. 1990. *Basics of qualitative research: Grounded theory procedures and techniques*. Newbury Park: Sage.
- Stivers, Robert L. 1976. *The sustainable society: Ethics and economic growth*. Philadelphia: The Westminster Press.
- Stockholm International Peace Research Institute. 1993. *SIPRI yearbook 1993: World armaments and disarmament*. New York: Oxford University Press.

- The Sun News*. 1992. "S.C. State and Air Force to swap some land." *The Sun News*, (July 25), 5C.
- The Sun News*. 1993a. "The final flyby." *The Sun News*, (March 28), 7A-10A.
- The Sun News*. 1993b. "Editorials: MB base gridlock: Who knows best?" *The Sun News*, (September 20), 4A.
- The Sun News*. 1993c. "County tells city: Any base plan but yours!" *The Sun News*, (August 12), 1A.
- The Sun News*. 1993d. Editorials: "It's too late now to agree on base." *The Sun News*, (September 17), 6A.
- The Sun News*. 1993e. Editorials: "County council is dysfunctional." *The Sun News*, (February 4), 8A.
- The Sun News*. 1993f. Editorials: "Unite behind one base future plan." *The Sun News*, (May 30), 4E.
- The Sun News*. 1995. "Survey of base land reveals military goof." *The Sun News*, (August 3), A6.
- The Sun News*. 1997a. "Editorials." *The Sun News*, (May 25), 4D.
- The Sun News*. 1997b. Notable along the coast: "Timberland files Chapter 7 action." *The Sun News*, (June 20), 1A.
- The Sun News*. 1998. Notable along the coast: "MB area's growth still No. 2 in nation." *The Sun News*, (June 27), 1A.
- Suza, Dick., Environmental Coordinator, Air Force Disposal Agency, Operating Location P. 1998. Interview by author, October 13, Myrtle Beach. Tape recording. Myrtle Beach Air Force Base, Myrtle Beach, South Carolina.
- Swanstrom, Todd. 1985. *The crisis of growth politics*. Philadelphia: Temple University Press.
- Tarrow, Sidney. 1994. *Power in movement: Social movements, collective action, and politics*. New York: Cambridge University Press.

- Taylor, Paul. 1986. *Respect for nature*. Princeton, NJ: Princeton University Press.
- Terry, Roger. 1995. *Economic insanity: How growth-driven capitalism is devouring the American dream*. San Francisco: Berrett-Koehler Publishers.
- Thich Nhat Hanh. 1968. *Vietnam: Lotus in a sea of fire*. New York: Hill and Wang.
- Thomas, Kevin. 1994. Planning for sustainable development: An exploration of the potential role of town planners and the planning system. In *Perspectives towards sustainable environmental development*. Williams, Colin C. and Graham Haughton, eds. Hong Kong: Avebury.
- Thomas, William A., Gerald Goldstein, and William H. Wilcox. 1976. *Biological indicators of environmental quality; a bibliography of abstracts*. Ann Arbor: Ann Arbor Science Publishers.
- Thompson, Janna. 1995. Towards a green world order: Environment and world politics. *Environmental politics* 4 (Winter): 31-48.
- Tides Foundation. 1994. *Defining sustainable communities: Many pieces fit together*. Washington, D.C.: Tides Foundation.
- Tober, James A. 1989. *Wildlife and the public interest: Nonprofit organizations and federal wildlife policy*. New York: Praeger.
- Tolba, Mostafa K., and Osama A. El-kholy. *The world environment 1972-1992: Two decades of challenge*. New York: Chapman & Hall.
- Toman, Michael A. 1992. The difficulty in defining sustainability. *Resources* (Winter): 3-6.
- Tonn, Bruce E. and Carl Petrich. 1998. Everyday life's constraints on citizenship in the United States. *Futures* 30: 783-813.
- Trefethen, James B. 1975. *An American crusade for wildlife*. New York: Winchester Press.
- Trzyna, Thaddeus C., and Julia K. Osborn, eds. 1995. *A sustainable world: Defining and measuring sustainable development*. Sacramento CA: The World Conservation Union.

- Tudge, Colin. 1991. *Last animals at the zoo: How mass extinction can be stopped*. London: Hutchison Radius.
- Tuxill, John. 1999. Appreciating the benefits of plant biodiversity. Directors Brown, Lester R., Christopher Flavin, and Hilary F. French. *State of the world: A Worldwatch Institute report on progress toward a sustainable society*. New York: W. W. Norton & Company.
- Umberger, Mary. 1998. "New urbanism, livable design: Community big sales pitch." *The Sun News*, (July 22), 1E.
- United Nations. 1992. *Earth summit, AGENDA 21: The United Nations programme of action from Rio*. New York: United Nations Conference on Environment and Development.
- United States Air Force. 1993. *Draft Environmental Impact Statement: Disposal and Reuse of Lowry Air Force Base, Colorado*. Washington, D.C.: Government Printing Office.
- United States Air Force. June 1991. *Pease: Socioeconomic impact analysis study*. Washington, D.C.: Government Printing Office.
- United States Army Corps of Engineers. 1996. *Installation-wide multispecies habitat management plan for former Fort Ord, California*. Washington, D.C.: Government Printing Office.
- United States Bureau of the Census. 1940. *1940 Population*. Washington, D.C.: Government Printing Office.
- United States Bureau of the Census. 1950. *1950 Population*. Washington, D.C.: Government Printing Office.
- United States Bureau of the Census. 1960. *1960 Population*. Washington, D.C.: Government Printing Office.
- United States Bureau of the Census. 1970. *1970 Population*. Washington, D.C.: Government Printing Office.
- United States Bureau of the Census. 1980. *1980 Population*. Washington, D.C.: Government Printing Office.

- United States Bureau of the Census. 1990. *1990 Population*. Washington, D.C.: Government Printing Office.
- United States Bureau of the Census. 1997. *State and Metropolitan Area Data Book, 1997-1998*. Washington, D.C.: Government Printing Office.
- United States Congress Committee on Natural Resources. 1994. *Taking from the taxpayer: Public subsidies for natural resource development, Majority Staff report*. Washington, D.C.: Sub-committee on Oversight and Investigations.
- United States Department of Commerce. 1994. *Statistical abstract of the United States*. Washington, D.C.: Government Printing Office.
- United States Department of the Interior. 1997. *Endangered Species Bulletin 22* (January/February): 1-20.
- van Dieren, Wouter. 1995. *Taking nature into account: A report to the Club of Rome: Toward a sustainable national income*. New York: Copernicus.
- Vaughn, Sharon, Refuge Manager, Great Bay National Wildlife Refuge, U.S. Fish & Wildlife Service. 1998. Interviewed by author, September 18. Tape recorded, Great Bay National Wildlife Refuge. Newington, New Hampshire.
- Viederman, Stephen. 1993. The economics and economy of sustainability: Five capitals and three pillars. Talk delivered to Delaware Estuary Program. Available from Noyes Foundation, New York.
- Viederman, Stephen. 1995. Knowledge for sustainable development: What do we need to know? In *A sustainable world: Defining and measuring sustainable development*. Thaddeus C. Trzyna and Julia K. Osborn, eds. Sacramento CA: The World Conservation Union.
- Vig, Norman J., and Michael E. Kraft, ed. 1997. *Environmental policy in the 1990s*. 3d ed. Washington, D.C.: Congressional Quarterly Inc.
- Wall, Howard. 1993. "Reverse park plan for base." *The Sun News*, (July 23), 4D.
- Wallis, Allan, Jarle P. Crocker, and Bill Schechter. 1998a. Social capital and community building, part 1. *National Civic Review* 87 (Fall): 253-272.

- Wallis, Allan, Jarle P. Crocker, and Bill Shechter. 1998b. Social capital and community building, part 2. *National Civic Review* 87 (Winter): 317-337.
- Warren, A., and F. B. Goldsmith. 1983. *Conservation in Perspective*. New York: John Wiley & Sons.
- The Washington Post*. 1997. "The Defense Accounting." *The Washington Post*, (May 20), A18.
- Webb, Wellington. 1999. "Off and walking." *The Denver Post Online*. <http://www.denverpost.com/opinion/edit0210a.htm>, February 17.
- Webler, Thomas. 1995. "Right" discourse in citizen participation: An evaluative yardstick. In *Fairness and competence in citizen participation*. Renn, Webler, and Wiedemann, eds. Boston: Kluwer Academic Publishers.
- Weiss, Carol H., and Michael J. Bucuvalas. 1980. *Social science research and decision-making*. New York: Columbia University Press.
- Western, David, Wright, and Strum, eds. 1994. *Natural Connections: Perspectives in community-based conservation*. Washington, D.C.: Island Press.
- White, Jay D., and Guy B. Adams. 1994. *Research in public administration: Reflections on theory and practice*. London: Sage.
- Whyte, W. F. 1984. *Learning from the field: A guide from experience*. London: Sage.
- Whyte, W.F. ed. 1991. *Participatory action research*. London: Sage.
- Wildinson, Philip M., and Walter E. Rhodes. 1997. Growth rates of American alligators in coastal South Carolina. *The Journal of Wildlife Management* 61 (April): 397-403.
- Williams, Richard, Site Manager, Air Force Disposal Agency, Operating Location P, Myrtle Beach Air Force base. 1998. Interview by author, November 18, Denver. Tape recording over the phone. Myrtle Beach, South Carolina.
- Wilson, Edward O. 1992. *The diversity of life*. Cambridge, MA: The Belknap Press.

- Wolfinger, Raymond E., and Steven J. Rosenstone. 1980. *Who Votes*. New Haven: Yale University Press.
- World Resources Institute. 1994. *The 1994 information please: Environmental almanac*. New York: World Resources Institute.
- Wren, David. 1993. "MB Councilman questions plans for theme park." *The Sun News*, (December 10), 1A.
- Wren, David. 1995. "TPI president claims all is well with theme park." *The Sun News*, (September 2), 1D.
- Wren, David. 1996. "TPI claims Isle of America on track." *The Sun News*, (June 14), 1D.
- Wren, David. 1997. "Legal claims tying up Air Base land redevelopment of 422 acres delayed by TPI creditors." *The Sun News*, (29 June), 1A.
- Wren, David. 1998. "Base authority mulls plan to build 'urban village,' development would cost \$22 million." *The Sun News*, (January 13), 1A.
- Yin, Robert K. 1989. *Case study research: Design and methods*. Revised edition. London: Sage.
- Yu, Chang-Ching, John T. Qinn, Christian M. Dufournauds, Joseph J. Harrington, Peter P. Rogers, and Bindu N. Lohani. 1998. Effective dimensionality of environmental indicators: A principal component analysis with bootstrap confidence intervals. *Journal of Environmental Management* 53: 101-119.
- Zisk, Betty H. 1992. *The politics of transformation: Local activism in the peace and environmental movements*. Westport, CT: Praeger.